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Conference on Modern Developments in Mental Nursing

IMPROVED NURSING FOR THE MENTALLY ILL.*

BY WALTER CHANNING, M.D., BROOKLINE, MASS.,

Chairman Trustees, Boston State Hospital.

THE discussion this afternoon covers a wide field. Let us hope that it will help in the solution of the problem of improved methods of nursing the mentally ill. Theories are, however, easy to promulgate, but innovations difficult to introduce into fixed systems.

I believe that, on the whole, patients in most state hospitals are being better cared for year by year. There are good training schools, well managed, which do much to improve the nursing service. But there are obstacles in the way which hamper the efforts of the hospital authorities toward further improvement. As a matter of fact, our hospitals are of necessity too parsimoniously managed, and from this cause largely result the criticisms which would-be reformers are so lavish with. While public opinion says on the one hand, "Your hospital is badly carried on", on the other hand, the legislature expects the hospital to sail as close to the wind as possible in its expenditures. The result is that a per capita cost is established, which is too small to supply food of a sufficiently good quality and does not allow for a big, well-paid nursing staff, and other necessary things. If the truth were known, it would be found that the state was getting its wards looked after very cheaply, considering the good quality of the care.

We must face the facts that a rapidly increasing business requires a steady increase of expenditure and that no business can be done on a first-class basis by furnishing only money enough to carry it on on a second-class basis. Yet we find many of our statesmen overcome by the size of the state tax and not able to realize that the number of dependents increases rapidly each year, and that first-rate care cannot be furnished on too niggardly appropriations. Of what use is it to blame the hospitals for the poor quality of nursing, if because of insufficient means they cannot employ nurses enough, and cannot pay wages which will attract and hold the desirable class?

In a recent paper on "The Better Training of Nurses in State Insane Hospitals" I have elaborated ideas of my own as to what can eventually be done in this direction, and have suggested that the first steps should be taken in the psychopathic departments of the hospitals where they exist, as they should, in connection with all state hospitals. This institution, acting on its own initiative, is already undertaking to put new methods into operation, which no doubt will be explained to us this afternoon. The board of trustees, of which I am a member, is in sympathy with any movement which may be for the benefit of the patients, and while satisfied that the training school at the main hospital is doing excellent work, believes that a course of training may be possible along somewhat different lines in this department.

It is well to consider methods, because even in the existing conditions, changes can be made which will be of great service, only I believe the means to accomplish the desired ends should be kept steadily in view. At all times, we should be ready to discuss and maintain our ideals, and I believe this meeting will help to clarify ideas which have been in the minds of many, but in a rather vague form.

* Psychopathic Hospital Contributions Number 44 (1914.10). This and a number of the contributions to follow (as well as one preceding contribution, viz., Number 37 (1914.3), "The Art of Companionship in Mental Nursing," by Dr. H. R. Stedman), formed a portion of the papers read in full or in abstract form at a conference on Modern Developments in Mental Nursing held at the Psychopathic Hospital, Boston, February 16, 1914. *(Bibliographical Note.* The previous contribution in this series, Number 43 [1914.9] was by Dr. W. B. Swift, "A New Voice Sign in Chorea," *Am. Jour. Diseases of Children,* June, 1914).

THE TRAINING OF THE PSYCHOPATHIC NURSE.*

BY M. ADELAIDE NUTTING, NEW YORK,

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THE subject upon which Dr. Southard has asked me to speak is the Training of the Psychopathic Nurse. I can see no point of view from which this subject may be approached that is not important, since it appears to be indisputable that every step forward in the development of better methods of diagnosis, of care and treatment and of scientific study of this class of diseases must, to be truly effective, be accompanied by corresponding developments in methods of nursing. Equally true does it appear to be that measures of prevention through education or other methods cannot be well initiated and properly carried out without the aid of suitably trained women.

The first and largest need is in those hospitals, public and private, in which the mentally sick are cared for. While much progress has been made in these institutions, there is still obvious need for a good deal of improvement in the character of the nursing; it is indeed urgent in some of them. Until quite recent years the care of sufferers from mental troubles was largely custodial in nature, the word "attendance" describing fairly correctly the character

* Psychopathic Hospital Contributions Number 45 (1914.11), a paper read at a conference mentioned in footnote to Dr. Channing's paper on "Improved Nursing for the Mentally Ill," Contribution Number 44 (1914.10).

of much of the work done for such patients. And, so long as mental troubles were little understood, their causes all but unknown, the cure doubtful, the chief essential in their care seemed to be to insure watchful and kindly attendance and protection. Nursing, as we today understand it, was not recognized as necessary.

As we pass out of that stage of thought and begin to look upon mental disorders exactly as we look upon other forms of sickness with possibilities of improvement or cure, depending upon intelligent and skilful treatment, good nursing becomes at once an essential and indispensable factor in the situation. For the diagnostic and therapeutic methods of modern medicine and surgery cannot be properly applied to these patients without the coöperation of a competent nursing staff. The medical inspector for the New York State Commission in Lunacy, Dr. William L. Russell, says that "nothing has contributed more to the hospitalization of asylums than the establishment in them of training schools for nurses."

Miss Anne Goodrich, whose duties as inspector of training schools in the state of New York call her into the state hospitals for the insane, points out interestingly the difference in the care of patients in two types of institutions: the one in which the work is largely done by attendants, and the other in which it is done by student-nurses in training. She says the difference is marked, and it lies, not only or chiefly in greater external order, precision, cleanliness, but in that all-pervading, yet almost indescribable thing, known as tone or spirit. The outlook, the point of view of the student-nurse is usually wholly different from that of the attendant. In the one instance, the effort is to keep the patient clean, comfortable and contentedly occupied; in the other the interest is scientific as well as humane; it is concerned with the progress of the patient, with the effect of treatment, with those changes in attitude and behavior, which may be very fine, very subtle, yet very significant. Such conditions, upon which correct diagnosis and adjustments of treatment depend, are apt to elude any but the intelligently interested and closely observant student.

To those familiar with the dependence of physicians upon nurses in our great teaching hospitals, it will seem quite clear that wherever physicians are engaged in the serious study of mental disorders, in experiment and research, there will be needed to supplement their efforts the work of educated and carefully trained nurses. I do not, in fact, see how the proper study of insanity can take place, how physicians can carry through all the stages of experiment which appear to be indispensable to progress, without the constant use of those observations which hardly any one but the nurse, who lives with her patients in the wards, is in a position to make. Dr. Richard Cabot, who has done much to stimulate us to better effort, has more than once noted the fact that we are not yet in our general medical work making full use of the observations for which we are peculiarly dependent upon nurses. He says, "Especially in symptomatology and therapeutics, the nurse has a far better opportunity than the doctor to make discoveries, because she sees so much more than he does of the effects of treatment and of the details of symptoms from hour to hour."

The proper nursing of the mentally sick, however, important as it is, is not, I am inclined to think, the chief contribution which nurses may eventually make in this field of work. Now that we have revealed to us certain well-defined causes of insanity and others recognized, but as yet dimly defined, this whole work takes on a new aspect and a new life. To the knowledge that proper medical treatment and nursing of mental disorders ensures a larger hope of recovery, is added that knowledge of infinitely greater significance, that causes are known and can be dealt with, and thus measures for the prevention of insanity are taking a prominent place in medical thought and action of the day. Among these measures, education stands in the forefront. It is the clearest of duties to get into use speedily such knowledge on this subject as is available and usable by the ordinary man or woman, and to do this in as many ways and through as many agencies as can be accepted for the purpose. I have little hesitation in urging that nurses, and visiting and school nurses in particular, may be reckoned among the valuable agencies in getting before the people in a direct and simple way, some of this needed information and instruction; for nurses do enter freely into homes, are usually welcome visitors, and may, if they are able, penetrate deeply into the problems of home and family life.

Armed with more definite and wider knowledge of the causes of insanity, and given some specific training in the observation and care of patients with mental disorders, they could take advantage, such as they are not now able to take, of the opportunities which lie actually in their daily paths. It seems probable that a good many unrecognized or neglected patients might be found and placed under proper care, and it seems certain that the influences and environment of children in their homes, which are likely to culminate later in producing mental troubles, might be recognized and in some degree changed. From this standpoint alone, the teaching by nurses of the vast and far-reaching importance of childish habits may be among the most fruitful of their daily tasks. Nor should we exclude from this obligation the vast army of private nurses, who, going from household to household, may find exceptionally valuable opportunities for presenting in the plainest and simplest way some of the important facts relating to the production and to the prevention of insanity,—that chance for prevention which

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exists according to Dr. Starr in about 35% of all cases.

Pathetically little can be done in any of these directions until we have found some way of giving a suitable place to this subject in the regular training schools in which our nurses are educated. If you ask me if some such instruction should form a part of the training of every nurse, I am obliged to answer "yes." I do believe that it should, first because I know of no way by which the nurse can ensure that she will not have to meet and care for mental disorders as a complication of ordinary diseases in the course of her regular work, and second because of the increased importance of mental disorders and the larger place they are taking in medical and public interest. Insanity appears to be increasing. Dr. Russell speaks of it as a "rising tide." Dr. Rosanoff says that it is increasing at a rate which is about two times as great as the rate of increase of the general population. Whether the real increase is as great as it seems, this much at any rate appears to be true, the actual number of patients with mental troubles to be cared for is increasing everywhere. This fact alone makes an undeniable appeal to nurses, which, through them should eventually react back upon our schools of nursing; for, if these schools are to meet the needs of the times, they must carefully study the expanding field in which nursing knowledge is to be applied, enlarging their curricula and adjusting their methods of instruction to include new conditions of disease, or better understanding of old ones. The recognition of insanity as a disease seems, therefore, to have brought a new obligation to training schools.

This important special branch of nursing should not be left out of consideration to be handled entirely independently of the general scheme of education for nurses. For such special training should at all times rest upon a basis of general training. It should be placed at a stage in the education of the nurse when she is well grounded in her preliminary sciences, and has sufficient command of nursing principles and methods to be able to supply them under new and peculiar conditions. For it must constantly be kept in mind that many mental troubles are based upon physical disorders, not infrequently of a grave nature; that the death-rate in insanity is high; that many mental troubles are constantly accompanied by bodily ailments and weaknesses. Every resource which the student-nurse has learned to apply in her medical and surgical nursing may be called into requisition here. The student, therefore, should have had a considerable training in general nursing before proceeding to this special branch, more difficult, more complex, baffling often even to the most intelligent efforts and study, and making in all instances a new and special demand upon faculties trained to comprehend in some degree the nature of these demands. Dr. Albert Ferris, president of the New York State Commission on Lunacy, very clearly shows what is needed. "Medical care," he says, "and nursing should be as complete as in the case of any other grave form of illness." "The tenderest nursing is essential from the start," since the earliest treatment is often the most important. He draws a charming picture of the conditions under which such nursing should be done, of the impressions and influences which should surround such patients as a part of their treatment,—an ideal psychopathic ward in fact.

In a few of our great teaching hospitals such departments have been established, and at the Albany, Bellevue, the Johns Hopkins Hospitals, students from the training schools are taking a period of training in mental work as a part of their regular course. I learn from Miss Taylor, the supervising nurse of the Phipps Psychiatric Clinic in Baltimore, that a good many of the students become so deeply interested in the work that they beg for longer training, and I presume this is true of the other institutions. This is, of course, precisely what is looked for and desired. It is from such students, those who have shown particular interest, aptitude and fitness, whose interest, in fact, impels them to seek further and more thorough preparation, that the special workers in this field of mental, or as it is here called, psychopathic nursing, will be drawn. It should rank as one of the higher branches of nursing.

While as yet the hospitals with psychopathic wards or departments are few, institutions for the care of mental diseases are many, and abundant opportunities could doubtless be secured in some of them for instruction and training. There should be little difficulty in arranging for the admission of student-nurses for a definite period, say three or four months, in their senior year, and it is to be hoped that a good many of our older and leading training schools will ultimately effect some such relationship.

Probably the best next step would be the provision of a few really satisfactory courses of post-graduate study and training in mental nursing; something which would reach and interest the large body of graduate nurses,—courses in the formation of which all the resources of the institutions offering them were called upon; the instruction worthy of serious consideration; the practical work kept within rational limits for a student body. To such a scheme of instruction a social service department might contribute a valuable part. It seems probable that a psychopathic hospital with a well-organized teaching plan could receive both students in training and graduate students. But, of course, to do either in any adequate way, it must look far beyond the problem of its own current needs and approach the matter as an educational branch of work, to be handled as such.

The great importance of the subject, both from the standpoint of the individual and of our

entire social system, is a sufficient reason for an urgent effort to bring more and better trained workers to its problems; and the unusual interest and enthusiasm of those nurses who are already at work in this field is an incentive and an encouragement to those who would follow.

A COMPARISON OF THE DRUGS USED IN GENERAL AND MENTAL HOSPITALS.*

BY DONALD GREGG, M.D., BOSTON,

Assistant Physician, Out-Patient Department, Psychopathic Hospital.

A GENERATION ago one of the best of Boston physicians wrote to the effect: "We doctors give medicine to our patients, a little to our friends, but we never take any ourselves." On this basis, the Psychopathic Hospital treats its patients,—in a more friendly way than do most general hospitals.

An examination of the requisition blanks of the Psychopathic Hospital shows that 70 different drugs have been ordered for the hospital during the past six months. The formulary of the Boston City Hospital shows 194 different drugs, and that of the Massachusetts General Hospital, 160 drugs. But the drugs ordered for a hospital dispensary, or the drugs named in a formulary, are a poor index of the medication acutally given.

In giving medicine, one or more of three objects is sought: First, to combat directly the processes causing a disease, or its resultant poison. Second, to assist the patient so that he is given strength and ability to resist the disease to best advantage. Third, to reassure the patient or his friends that something is being done for him in accordance with the idea that still lies deep-rooted in most human minds that for every disease there is some curative drug.

The medicines that act specifically against certain diseases, or resultant poisons, are few and far between,—quinine in malaria, arsenic and mercury in syphilis, antitoxin in diphtheria, etc. The medicines that assist the patient to overcome his disease are many, and include the vaccines and organic preparations of modern medicine, stimulants and depressants when properly used, and drugs that help eliminate poisons of all sorts. In the giving of these medicines, lies the widest field of activity and skill for doctor and nurse. The giving of drugs to reassure the patient, when rightly done, is one type of psychotherapy.

It is naturally to be expected that the drugs commonly used in general hospitals and mental hospitals differ. With the exception of syphilis, cretinism, and myxedema, there is rarely found in a mental hospital a disease that needs a specific medicine, and in many cases the mental abnormality is too great for drug psychotherapy to be useful.

In the use of drugs that help the patient to overcome his illness, there are many chances for investigation and research. The success of the treatment of delirium tremens at the Psychopathic Hospital with baths, packs, and elimination instead of stimulation, depressants and restraint, as commonly used in general hospitals, has already been demonstrated.

The following table was obtained from an examination of the order books of the six wards at the Psychopathic Hospital, in which 877 orders were written for treatment during the month of January, 1914:—

Average number of cases	95		
Total orders	877		
Baths	343	39%	86%
Packs	80	9%	
Eliminatives	330	38%	
Stimulants	51	6%	14%
Depressants	33	3.5%	
Miscellaneous	40	4.5%	

Of the 877 orders, 86% were for baths, packs, and elimination, while only 14% were for stimulants, depressants and other medications. Perhaps the most striking figure is that 33, or only 3½%, of the orders, were for depressant drugs. These orders include those for morphia, bromides, veronal, etc., and total only about one order a day for the 95 cases in the hospital. The next most striking figure is that of 343 baths,—most of them continuous baths,—and means that during the 31 days of the month, the 12 tubs used for prolonged baths were all in great demand.

The problems in medication at mental hospitals lie in refinement of the use of drugs for purposes of elimination, in decreasing autointoxication, and in rectifying pathological action of the internal secretions. In eliminating substances from the body, there is ample chance for skilful medication. There are cases needing mechanical relief by enemata, cases needing to have the fluids drained off by purges, and cases that are already desiccated and need more fluid, although still requiring relief from intestinal stasis. There are acute cases that may even need to be bled to reduce their fluids, or to have lumbar punctures done to lessen an excessive amount of cerebrospinal fluid. There are cases where autointoxication arises from infected teeth, or tonsils, or from misplaced and adherent intestines. There are cases where presumably the thyroid, thymus or pituitary glands, or the reproductive organs, are not functioning properly. In all these directions lie problems in medication for cases in mental hospitals.

General hospitals have many lessons to learn from mental hospitals, especially in the management of the deliria. Not the least of these lessons is that depressants, stimulants, and re-

* Psychopathic Hospital Contributions Number 46 (1914.12), a paper read at a Conference on Modern Developments in Mental Nursing, February 16, 1914.

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straint lessen, whereas baths, packs, and elimination greatly increase a patient's chance for recovery. Workers in mental hospitals cannot but profit by a thorough knowledge of the best methods of medication in use at general hospitals, and workers in general hospitals can lose nothing, but gain much, by familiarity with the best methods in use at mental hospitals, for every patient needing treatment has the right to have his mental activities properly cared for at a general hospital, and his physical activities equally well attended to at a mental hospital.

REMARKS AT CONFERENCE ON MODERN DEVELOPMENTS IN MENTAL NURSING, FEBRUARY 16, 1914.*

By Charles William Eliot, LL.D., M.D. (Hon.), Cambridge, Mass.

I came here today because I wanted to learn about the next great piece of progressive work in developing nursing. I think it was Dr. Adler who referred just now to the fact that the professional training of nurses began only about forty or fifty years ago. I distinctly remember hearing one of the most eminent surgeons in Boston, when it was proposed to have a training school for nurses established at the Massachusetts General Hospital, declare with much warmth, that such a school would be a great injury to the medical profession and to society, that nurses ought not to be trained, that there ought not to be any such calling, and that he could not protest too strongly against the association of a training school for nurses with the Massachusetts General Hospital. That argumentation was possible for an able man only about forty-five years ago.

Here, in this state establishment, there is beginning a new departure in the training of nurses, which is to be a great advance for the profession of nursing, because mental nursing is much more difficult than any other kind of nursing. At the same time, the need of skilful mental nursing is urgent indeed, and will soon be generally recognized in this community. It offers a new calling for women, and for women who possess qualities which are rarer and higher than those necessary for the general hospital nurse. One of the qualities the mental nurse should possess in large measure,—indeed it is essential to her success,—is courage, courage of a different sort from that which most vigorous men exhibit. When it comes to dealing with excited or violent patients, women cannot rely on their own physical force or strength as men can. They have to rely on a personal influence which has mental and spiritual sources. They must possess the courage that is visibly associated with tenderness and bodily weakness, a kind of courage which, fortunately, is peculiarly fascinating to men. This was brought home to me very acutely while I was recovering in Kandy, Ceylon, from an operation for appendicitis. The attack had been a serious one, the wound was in the worst possible condition, and my strength was wholly gone. I never knew before what a physical thing courage is in man; but when I was so weak that I could neither stand nor sit up, I found out. There was in the hospital at the same time a young man of powerful physique, suffering from delirium tremens. One afternoon I was lying in a long wicker chair on the veranda of the hospital,—quite unable to get out of it,—when suddenly I saw this delirium tremens patient approaching me. He had his arms round the necks of his two Singhalese attendants, and he was pushing and dragging them along; he had broken out of his room, and they apparently had no control over him. The group came on rapidly, staggering and plunging from side to side. At one side of my chair my granddaughter was sitting, and on the other side my secretary, but they had their backs to the approaching trio. He came to the foot of my chair and, the two attendants being unable to prevent him, he reached forward and said, "I want to shake your hand." It was as much as I could do to accommodate him with that gesture. He then turned to my granddaughter and remarked, "Good evening, I think I have met you before." Possibly he had, for she often walked about the hospital. Then he turned to my secretary on the other side, who was a large, tall man, and suddenly took offence and looked dangerous. At that moment a little Danish nurse dashed out from a passage nearby, arrived in front of this man, and instantly tackled him with words only. She didn't touch him, only spoke to him; but her manner and what she said controlled him instantly. He turned, followed by her closely, went at once to his room and got into bed. This is the kind of woman that you want for mental nurse, and the community needs many of them. The mental nurse also needs alertness, keen powers of observation, incessant watchfulness, and inexhaustible patience, and withal capacity for pleasant companionship. These are fine moral qualities resting on firm foundations of health and cheerful vitality. It is a noble profession for which this hospital hopes to train women.

* Being Psychopathic Hospital Contributions Number 47 (1914.13) a paper read at a conference on Modern Developments in Mental Nursing, February 16, 1914.

Cases of infectious diseases reported to the Boston Board of Health for week ending Sept. 15, 1914: diphtheria, 29; scarlatina, 20, of which 2 are non-resident; typhoid fever, 18, of which 2 are non-resident; measles, 13, of which 3 are non-resident; tuberculosis, 42, of which 3 are non resident. Death rate for week, 12.43. Non-resident cases are included in total cases.

ANALYSIS OF RECOVERIES AT THE PSYCHOPATHIC HOSPITAL, BOSTON: I, ONE HUNDRED CASES, 1912-1913, CONSIDERED ESPECIALLY FROM THE STANDPOINT OF NURSING.*

BY E. E. SOUTHARD, M.D., BOSTON,

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THERE is an old Greek saying that we can't be sure of a man's happiness until he dies. And it is certainly true that we can tell much more about most cases of mental disease after their courses are run,—and, if possible, a thorough autopsy has been conscientiously performed, in each case, with scrutiny both of the brain and of the organs of the trunk. Only then can what Kraepelin has termed the longitudinal section of the patient's disease be examined, with all or almost all the body's difficulties revealed or indicated.

So true is this that it sometimes seems to me an impertinence to draw sweeping conclusions from inspection of a brief period of any man's life, especially from the turbid conditions that inform and surround the mental patient's life. Particularly perplexing are the cases that recover, whether or no they succumb to further attacks. Particularly, too, those which eventual autopsy determines to have suffered no especial wasting or scarring, or other injury of the brain. Such cases appeared in the Danvers series which I have been working over since 1909 to the number of 235 in 1000. About one case in four, then, failed to yield to the brain examiner any signs of loss of brain tissue, such as would be almost sure to appear had the brain disease been destroying many cells for three months or so before death.

Curiously enough, accordingly, my interest in proving various brains normal (or their conditions in some sense *reversible*, so that the brains, if diseased, should return to normal) has led me to look with especial interest upon the recoveries which the Psychopathic Hospital has more or less to its credit. I use the latter phrase because I had such difficulty in dissuading some of our eager workers from using the term "cure" instead of the term "recovery." Naturally, as in medicine at large, the *vis medicatrix naturae* is often more in evidence than the *vis ipsius medici*.

I have, therefore, concluded to study our recoveries by hundreds until a sufficient basis is obtained for generalizations as to the various factors making for recovery. This first series is somewhat unfavorable for the purpose of generalizations about the major types of recoverable insanity, since, although our problem is only about one-ninth alcoholic, the quick recoveries from various forms of alcoholic mental disease made the alcoholic cases so rapidly outstrip the other recovered cases as to make the alcoholic cases quite dominate the picture.

The following transcripts from charts explanatory of the general scope of our work demonstrate the above statements:

PSYCHOPATHIC HOSPITAL.
BOSTON, 1913.

For all classes of mental patients *except* regular court commitments.
Of its admissions:
About one-sixth are not insane.
About one-fourth are voluntary.
About one-half avoid expense and "stigma" of court commitment during the year.

1912-3.

Alcoholic Psychoses form one-ninth of Cases admitted .....(217-1829)
Alcoholic psychoses 217
Acute hallucinosis 116
Delirium tremens . 64
Other forms 37

1912-3.

All admissions 1523
Remaining in some institution .. 752
Discharged 771
Not recovered .... 340 } 392
Dead ..... 52 }
Not insane ..... 250 } 379
Recovered ..... 129 }

1913.

All admissions 1523
Temporary care 978
Seven days 584
Chap. 395, Acts 1911
Boston police 394
Chap. 307, Acts 1910
Voluntary 362
Other legal forms 183

In partial explanation of these tables and to permit a better understanding of the group of recoveries about to be listed, let me say that the Psychopathic Hospital is a hospital of 110 beds, which is planned to be operated at about 100 beds. It is a state institution,—an integral part of the Boston State Hospital. It was planned and constructed in such a way as to present itself to the public on an entirely different footing from that of the other state institutions. It is clear from some of the data presented in the above tables that the institution has begun to perform its differential task. For example, out of 1523 patients admitted during the last year, there were 362 which were admitted as *voluntary patients*. Moreover, out of these 1523 patients, there were 250 which we were able to discharge as *not insane*. The "not insane" group was composed not merely of voluntaries, but of various other types of admission. All of these "not insane" cases had had their mental

* Read in abstract at the conference on Modern Developments in Mental Nursing, held at the Psychopathic Hospital, February 16, 1914. Being Contributions from the Psychopathic Hospital, Boston, Mass., Number 48 (1914.14). *Bibliographical Note.* The previous contribution (1914.13) was by Charles W. Eliot, "Remarks at Conference on Modern Developments in Nursing," published in BOSTON MEDICAL AND SURGICAL JOURNAL, vol. CLXXI, p. 477.

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problems to solve. Although these problems are very possibly not in all cases solved forever (many of the patients were of the psychoneurotic group), yet the hospital in so far may be considered to have fulfilled a portion of its new function. It is clear that such percentages of voluntary admissions and of cases which are later discharged as "not insane" are not the rule in existing types of state institutions for the insane, either in this state or in others.

Another feature which differentiates this institution from other state institutions is the very rapidly developing out-patient department, which is now receiving at the rate of over 800 new cases a year. To this department are discharged the recovered cases, and, although the department was not fully organized during the period from which the present series of 100 recoveries is drawn, yet it appears by the records that 53 of the 100 recoveries appeared at the out-patient department or were investigated by social workers connected with that department.

It may be added that the average stay of patients at the institution is but three or four weeks, although in cases of special diagnostic or therapeutic interest, there is no rule against keeping patients indefinitely, and a number have been kept for relatively long periods for observation and treatment.

With this brief and inadequate sketch of the present status of the Psychopathic Hospital problem, I will pass to a consideration of the first 100 recoveries, referring the interested reader to other official and semi-official publications concerning the Psychopathic Hospital's scope. The first 100 recoveries came within a period dating from the opening of the hospital, June 24, 1912, to about the middle of 1913.

AGE RATIO.

The average age of the group is 40. This demonstrates that our series does not include many cases of the group ordinarily thought recoverable, since many cases with attacks of manic-depressive insanity and of dementia precox should be recovered at far below the age of 40.

The average age of the 30 females was 36; that of the 70 males was 41.

DURATION RATIO.

The average duration of hospital stay in these cases was about 24 days. The duration of hospital stay in the case of women was about four weeks (27 days) on the average; of men, about three weeks (22 days).

The recoveries of the first hundred *persons* involved counting 108 recoveries of *cases*, since there were 7 instances of two recoveries in the same case and 1 instance of 3 recoveries in the same case.

SYPHILIS RATIO.

After routine Wassermann tests for syphilis had been established, 62 serum tests were performed in this group of 100 recovered cases, and of these 62, 9 were positive. The percentage (15%) is exactly the same as that for the total group of 1671 cases performed since our routine was established.

Following are cases in which the condition of the cerebrospinal fluid was of interest, especially in connection with the fact that these are "recovered" cases.

J. D., 1915, 12,010, M., 51, is a case interesting in that he was recovered from what was termed *delirium tremens* despite the fact that he had a positive Wassermann reaction in the spinal fluid, together with a small number of lymphocytes and albumin. The Wassermann reaction in the blood serum was very slightly positive, if at all positive. This may have been due to the alcoholism inasmuch as there appear to be cases in which the alcohol has diminished the Wassermann reaction. The pupils reacted very slightly, if at all, the knee-jerks were diminished and the ankle-jerks absent. There were various areas of anesthesia. Diagnoses of general paresis, delirium tremens, alcoholic hallucinosis and unclassified organic condition were considered. It is possible that this case should not figure as a recovery.

M. H., 11,233, F., 35, also recovered from alcoholic mental disease, regarded as alcoholic hallucinosis (alcohol denied) after twenty-six days' hospital stay, despite the fact that the cerebrospinal fluid gave a positive Wassermann reaction (serum negative, however). There were some peculiar features in the case which led to a provisional diagnosis of manic phase, manic depressive insanity. Possibly it is a case of syphilitic paranoia.

The patient consistently denied the use of intoxicants nor is there any proof that she drank alcohol. Her one brother is somewhat alcoholic. The illness began with depression and inactivity accounted for by her friends on the basis of the departure of a lover for Ireland. A few days later the patient was dizzy and refused to give her boarder breakfast, stated that she had lost her memory and began to hear bells ringing and people knocking. This phase was rapidly followed by a phase of excitement which was quieted at the hospital by the use of prolonged baths. It was a question whether orientation was wholly preserved on admission.

As to previous physical history, it is stated that patient had had stomach trouble and was troubled with headaches which patient stated were in the top of her head or sometimes in the temples. The physical examination showed the left pupil larger than the right, a slight tremor of lips, a slight systolic murmur at the apex, slightly irregular pulse, moderate edema of ankles. Patient was inclined to be peevish, somewhat resistive and pugnacious, rather slow in speech, sometimes refusing to answer and grimacing. She on this account produced somewhat the impression of being slightly feeble-minded. Mental tests by Binet and other methods demonstrated that patient was from this point of view hardly over eleven years old.

Her pugnacity was easily controllable, her mania was largely at night. She developed a fairly characteristic mania suggesting manic depressive insanity in the first four days after entrance but this

rather rapidly subsided in the course of a few days, and patient was discharged on six months' visit, twenty-six days after admission.

Further history is for the time being lacking. The patient was twice introduced into staff meetings for unclassified cases and the discussion developed suggestions as follows:

Unclassified mania; manic depressive insanity, manic phase; toxic delirium; dementia precox; bacterial infection of the brain; unclassified delirium; acute delirium; infectious psychosis; acute confusional insanity; psychopathic personality, modified by the use of alcohol; mentally deficient with atypical mental state. It was the writer's opinion that the case belonged in the manic depressive group.

As for syphilitic paranoia, or paranoid brain syphilis, Kraepelin in 1910 remarks that the group is very uncertain and almost unknown. Paranoid brain syphilis is a mental disease in which delusion formation and hallucinations are prominent, but physical disorders are not much in evidence. The onset of the disease is sometimes slow and insidious and sometimes tolerably sudden after various indefinite prodromata,—distraught conditions, irritability, excitement, occasionally after an attack of dizziness or a fainting spell. The patients become mistrustful, apprehensive, restless and deluded. Ideas of jealousy are very frequent, sometimes attended with great sexual excitement. Ideas of persecution are especially in evidence, accompanied by numerous auditory hallucinations, as well as others. The patients often have a distinct feeling of being ill; occasionally self-condemnatory ideas are uttered.

As a rule, patients remain quite clear, but there may be transient spells of unclearness. Mood variable, with a tendency to dulling and uncommunicativeness. Kraepelin remarks that it was particularly striking in a series of his cases that there was a sudden occurrence and equally sudden disappearance of extremely violent excitement, with or without external cause. These excitements were produced by a few words spoken, and immediately after the phase of excitement the patient would become friendly and accessible again, as if nothing had happened. Conduct as a rule quiet and orderly. Seizures are very common. Kraepelin enumerates a series of physical symptoms which occasionally occur and states that in about half of his cases there was a positive Wassermann reaction in the blood. But now and again all these signs were absent, although autopsy later showed the existence of syphilitic cortical disorder. Insomnia and headaches are frequent.

The course of the disease is characteristically very slow. The disorder may retreat completely into the background for long periods. Sometimes there is a condition of more or less pronounced mental weakness, with loss of judgment, senseless delusions, emotional dulling and loss of capacity to work. Kraepelin states that the relation of such phenomena to syphilis cannot be doubted on account of the autopsy findings and calls attention to the fact that similar pictures are observed in tabes.

Kraepelin thinks that most of the cases that belong to this group have previously been placed in the dementia precox or paranoid dementia groups. However, these cases lack the characteristic will disorder of those groups and lack the characteristic cleavage of personality which they would early show. As a rule, patients preserve their outward demeanor well and remain accessible and social. However, in far advanced cases catatonic phenomena are sometimes found.

Several of the patients belonging to this group of Kraepelin were regarded by him for some time as general paretics on account of slight physical signs pointing in this direction, and on account of the influencibility of their mood and action. However, the absence of speech and writing disorder, the absence of disorientation for time, and absence of all general weakness of the understanding tended to contraindicate the diagnosis of paresis.

DISORDER OF HEAT-REGULATION.

One way of ascertaining how much of a nursing problem these recoveries were is to consider how many cases showed either fever or decidedly low temperature. For assuredly all cases of seriously altered heat-regulation mean good nursing if life and health are to be maintained. Counting cases with 100° or more as showing fever and cases running less than 98° as hypothermic, we find at least 37 cases with either fever or hypothermia. Seven of the 37 had both of these signs at different times. Put another way, there were 23 cases of temperature 100° or above, and 21 with temperature below 98° at some time.

The older writers used to define insanity as chronic non-febrile disease affecting the mind. Whether the disorder of heat-regulation is incidental to the mental disease in the sense of being due to complications, or is in any way more fundamental in some cases, is for the present argument of no consequence. The necessity of good nursing in these cases is clear, and the advantage of general hospital standards in the nurses' attitude to the problem is likewise clear.

In connection with this problem of proper nursing in hospitals like the Psychopathic Hospital, I may be permitted to quote from a letter sent to the committee of superintendents dealing with the general aspects of the nursing problem for the insane:—

"My opinions are not, I find, as radical as you suggested (doubtless on general grounds) that they would be. I had thought my opinions would be found novel. They are not; since upon my recent trip to Washington, Baltimore and Philadelphia, I found that Dr. W. A. White of the Government Hospital, Drs. Winford Smith and Adolf Meyer of Johns Hopkins Hospital, and Dr. Owen Copp of the Pennsylvania Hospital for the Insane, are in gen-

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eral accord with these opinions. In point of fact, Dr. Winford Smith, superintendent of Johns Hopkins Hospital, is endeavoring to secure exactly the same kind of thing in which I am now interested—viz., the development of a higher type of insane hospital nurse which we may call the psychopathic hospital type.

"I should be in general accord with those who believe in grading, or as developing a stratified nursing force, having at the bottom persons of a custodial type corresponding to the orderlies of general hospitals, and above them a stratum composed chiefly of women of a higher grade. I should of course encourage persons in the orderly or maid servant group to endeavor to rise to the higher or training school grade, but I should be inclined to give up the idea of putting 'round pegs in square holes' by insisting on persons of all grades of intelligence going through the same training school. This can but pull down the general average of the training school.

"As to the training school itself for state hospitals, I should advocate the inclusion of more features recalling those of general hospitals. I should like to have more insistence laid upon the part played by physicians in lecturing and giving practical demonstrations to nurses. In some general hospitals it has been the custom to pay physicians extra for their work in lecturing and demonstrating: this secures better work. In Massachusetts, however, this plan could not be adopted, but an increase of salary could be granted to persons desirous of spending extra time in this manner.

"Above the two grades just mentioned, I should like to see developed a higher grade of nurses for the insane. The new type of nurse might be termed briefly the psychopathic hospital type. The grade should be founded upon a course pursued subsequent to the general hospital course. The proper length of such a post-graduate nursing course is a matter of doubt but might provisionally be placed at six months. A certificate or diploma should be granted for this work.

"The salary for persons taking this course should naturally be low, perhaps merely enough to cover the cost of uniforms, etc., but the course should be so elaborate, well-conceived and attractive that there would be no difficulty in securing graduates of general hospitals to take the course. Indeed I should say that any course proposed to be of this type which should fail to secure an adequate supply of general hospital graduate nurses would have to be marked down as a failure.

"To develop this grade of nurse, it would be necessary to give the general hospital graduate nurses as good food and living conditions as they have been accustomed to in general hospitals. This would mean placing them in more special quarters and giving them more dignity than is at present accorded to nurses and attendants in most of our state hospitals for the insane.

"So much will suffice for an utterly inadequate sketch of what I shall try to develop at the Psychopathic Hospital in the near future. I do not believe that much money can be saved to an institution which should try to develop this plan, since the money saved upon salaries will undoubtedly have to be spent upon food, quarters and teaching materials.

"I gathered from Dr. White of the Government Hospital that he was of the opinion that such doubly-trained nurses, that is, nurses with general hospital training plus graduate psychopathic hospital training, would secure good places in private practice. At all events it is clear that these nurses would be better nurses even in general nursing practice than otherwise. But here as in many other proposals, 'the proof of the pudding is in the eating.' To make these general hospital nurses come to us, we must do more for them than in the past and we must not take them from a busy, energetic surgical or medical service to a routine composed of nothing but vigilance and hope to attract a constant stream. One of the troubles with our present system, as general hospital nurses see it, is that they find insane hospital work to consist largely of 'watchful waiting' instead of constructive treatment."

CHANGES IN DIAGNOSIS.

Changes in diagnosis occurred in six cases during a single period of observation:—

11,215 *Alcoholic hallucinosis*, to *delirium tremens*.
11,611 *Delirium tremens* to *alcoholic hallucinosis*.
938 *Alcoholic hallucinosis* to doubtful form of *alcoholic psychosis*.
1,075 *Delirium tremens* to *alcoholic hallucinosis*.
1,774 Same.
1,841 *Alcoholic hallucinosis* to *delirium tremens*.

Changes in diagnosis in persons recovering two or more times, that is, during two or more separate periods of observation which occurred in cases:—

11,007 F. 28 *Unclassified;* to 11,114, *alcoholic hallucinosis;* to 12,196, *dementia precox*.
11,753 M. 40 *Alcoholic hallucinosis;* to 11,882, *delirium tremens*.
11,603 M. 60 *Alcoholic hallucinosis;* to 11,170, either *unclassified* or *cerebral arteriosclerotic insanity* or *alcoholic hallucinosis*.
1,188 M. 35 *Alcoholic hallucinosis;* to 1,703, *unclassified*.
1,736 M. 43 *Unclassified;* to 1,831, *alcoholic delusional insanity*.

Recoveries in persons in the third decade of life (21 to 30 years) were as follows:

11,007, 11,114, 12,196 F. 29 (1) *unclassified*, 32 days: (2) *alcoholic hallucinosis*, 61 days; (3) *dementia precox*, 25 days.
11,316 M. 21 *Manic-depressive insanity*, 79 days.
11,069 F. 29 *Alcoholic hallucinosis*, 8 days.
11,056 M. 29 *Alcoholic hallucinosis*, 36 days.
11,255 F. 28 *Alcoholic hallucinosis*, 49 days.
10,991 F. 21 *Dementia precox, catatonic*, 91 days.
11,119, 11,207 F. 21 (1) *manic depressive insanity*, 30 days; (2) *manic-depressive* (*manic phase*) 20 days.
911 F. 29 *Alcoholic hallucinosis*, 36 days.
946 M. 26 *Alcoholic psychosis*, 11 days.
958 M. 25 *Alcoholic psychosis*, 6 days.
969 F. 28 *Alcoholic hallucinosis*, 13 days.
1,022 M. 23 *Delirium tremens*, 16 days.
1,147 F. 24 *Alcoholic hallucinosis*, 30 days.
1,159 M. 27 *Alcoholic hallucinosis*, 27 days.
1,378 F. 24 *Alcoholic hallucinosis* (syphilis), 23 days.
1,425 1,633 M. 26 (1) *dementia precox, catatonic episode*, 16 days; (2) *dementia precox* (discharged unrecovered), 4 days.
1,774 M. 28 *Delirium tremens*, 19 days.
11,940 M. 28 *Delirium tremens*, 7 days.

Recoveries in persons in the fourth decade of life (30 to 40 years) were as follows:

11,073 M. 33 *Alcoholic hallucinosis*, 23 days.
11,124 M. 40 *Alcoholic psychosis*, 15 days.
11,371 M. 39 *Alcoholic hallucinosis*, 18 days.
11,413 M. 40 *Delirium tremens*, 14 days.
11,233 F. 35 *Alcoholic hallucinosis*, 26 days.
11,753, 11,882 M. 40 (1) *alcoholic hallucinosis*, 14 days; (2) *delirium tremens*, 11 days.
10,920 F. 35 *Exhaustion psychosis*, 24 days.
11,667 M. 40 *Delirium tremens*, 9 days.
12,266 M. 38 *Alcoholic hallucinosis*, 4 days.
870 M. 40 *Delirium tremens*, 11 days.
878 F. 34 *Alcoholic hallucinosis*, 10 days.
900 M. 40 *Alcoholic hallucinosis*, 1 month.
916 M. 37 *Alcoholic hallucinosis*, 18 days.
907 F. 35 *Alcoholic hallucinosis*, 1 month, 5 days.
938 F. 36 *Alcoholic hallucinosis*, 21 days.
967 F. 35 *Delirium tremens*, 16 days.
1,008 M. 36 *Delirium tremens*, 11 days.
1,014 M. 30 *Delirium tremens*, 7 days.
1,068 F. 38 *Alcoholic hallucinosis*, 12 days.
1,060 M. 33 *Alcoholic hallucinosis*, 10 days.
1,009 M. 35 *Delirium tremens* (*epilepsy*), 1 mon., 9 days.
1,188, 1,703 M. 35 *Alcoholic hallucinosis* or *classified*, (1) 18 days, (2) 4 days.
1,291 M. 31 *Delirium tremens*, 24 days.
1,278 M. 36 *Delirium tremens* (*epilepsy*), 8 days.
1,391 F. 38 *Alcoholic hallucinosis*, 22 days.
1,483 M. 40 *Delirium tremens*, 7 days.
1,532 M. 35 *Delirium tremens*, 11 days.
1,546 M. 37 *Alcoholic hallucinosis*, 5 days.
1,657 M. 40 *Alcoholic hallucinosis*, 10 days.
1,668 M. 40 *Delirium tremens*, 10 days.
1,739 M. 39 *Alcoholic hallucinosis*, 11 days.
11,116 11,926 M. 39 *Alcoholic hallucinosis*, (1) 17 days, (2) 13 days.
11,891 M. 36 *Delirium tremens*, 2 months, 13 days.
11,989 F. 40 *Alcoholic psychosis*, 20 days.

Recoveries in persons in the fifth decade of life (41 to 50 years) were as follows:—

10,845 M. 42 *Alcoholic hallucinosis*, 4 months, 3 days.
11,215 M. 47 *Alcoholic hallucinosis*, altered to *delirium tremens*, 12 days.
10,758 M. 42 *Alcoholic hallucinosis*, 1 month, 15 days.
11,592 M. 47 *Unclassified* (*alcoholic hallucinosis?*), 7 days.
11,434 M. 47 *Delirium tremens*, 2 months, 9 days.
11,557 F. 43 *Unclassified* (*depression*), 18 days.
11,858 M. 43 *Delirium tremens*, 12 days.
11,597 F. 42 *Alcoholic hallucinosis*, 1 month, 23 days.
888 M. 47 *Intoxication*, 1 day.
970 F. 41 *Delirium tremens*, 10 days.
985 M. 44 *Alcoholic hallucinosis*, 13 days.
1,021 F. 41 *Alcoholic hallucinosis*, 23 days.
1,047 M. 44 *Alcoholic hallucinosis*, 7 days.
1,062 M. 48 *Delirium tremens*, 21 days.
1,075 M. 45 *Alcoholic hallucinosis*, 1 month, 7 days.
1,230 F. 44 *Alcoholic hallucinosis*, 16 days.
1,454 F. 43 *Delirium tremens*, 6 days.
1,510 M. 41 *Alcoholic hallucinosis*, 1 month, 14 days.
1,686 M. 45 *Delirium tremens*, 16 days.
1,719 M. 44 *Alcoholic hallucinosis*, 12 days.
1,736, 1831 M. 43 *Alcoholic delusional insanity*, (1) 10 days, (2) 7 days.
1,841 M. 43 *Delirium tremens*, 29 days.
11,804 M. 50 *Delirium tremens*, 1 month, 16 days.
11,998 M. 41 *Alcoholic hallucinosis*, 9 days.
12,026 M. 45 *Alcoholic hallucinosis*, 10 days.

All of these fifth decade cases were alcoholic.

Recoveries in persons over fifty years of age were as follows:—

10,857 F. 71 *Delirium*, 4 days.
11,611 M. 58 *Delirium tremens*, altered to *alcoholic hallucinosis*, 20 days.
11,176 M. 58 *Alcoholic hallucinosis*, 1 month, 23 days.
11,203 M. 52 *Delirium tremens* (*pneumonia*), 15 days.
11,049 M. 54 *Manic-depressive insanity*, 28 days.
11,603, 11,770 M. 60 *Alcoholic hallucinosis*, 26 days; 11,770, either *unclassified* or *cerebral arteriosclerotic insanity* or *alcoholic hallucinosis*, 2 months, 2 days.
11,608 F. 63 *Delirium tremens*, 3 days.
12,274 M. 52 *Alcoholic hallucinosis*, 1 month.
915 M. 60 *Alcoholic psychosis*, 11 days.
956 M. 51 *Delirium tremens*, 29 days.
1,108 M. 52 *Delirium tremens*, 11 days.
1,190 M. 70 *Delirium tremens*, 16 days.
1,218 F. 52 *Alcoholic hallucinosis*, 6 days.
1,292 M. 51 *Delirium tremens*, 16 days.
1,191 M. 54 *Delirium tremens*, 1 month, 2 days.
1,555 M. 58 *Alcoholic hallucinosis*, 10 days.
12,010 M. 51 *Delirium tremens* (*general paresis?*), 3 days.
12,004 M. 51 *Delirium tremens*, 13 days.

Thus, of these 18 recoveries in persons over fifty years of age, there were

Delirium tremens	9
Alcoholic hallucinosis, etc.	7
Delirium	1
Manic-depressive insanity	1

Recoveries outside the alcoholic group are as follows:

11,007, 11,114, 12,196, F. 28 possibly belongs in the alcoholic group, but was placed in her third attack in the dementia precox group.
10,857 F. 71 *Delirium*, 4 days.
11,316 M. 21 *Manic-depressive insanity*, 2 months, 19 days.
10,991 F. 21 *Dementia precox, catatonic*, 3 months, 1 day.
11,557 F. 43 *Unclassified* (*depressive*), 18 days.
10,825 F. *Unclassified*, 2 months, 15 days.
10,920 F. 35 *Exhaustion-psychosis*, 24 days.
10,884 F. 25 *Morphine hallucinosis*, 28 days.
11,207, 11,119 F. 21 *Manic-depressive insanity*, (1) 1 month, (2) 20 days.
11,049 M. 54 *Manic-depressive insanity*, 28 days.
1,425, 1,633 M. 26 *Dementia precox, catatonic*, 16 days; discharged in second attack unrecovered, 4 days.
1,448 F. *Unclassified*, 13 days.

Future analyses may be made more thorough, and the elements of recovery may stand out more clearly in detail. Suffice it to say that a superficial analysis like the present amply proves several points.

First, the component of nursing cannot be omitted from these recoveries, brief as was the time of the hospital stay of the majority of cases. This is proved by the incidence of disorder of heat-regulation (fever, hypothermia) in at least 37% of the cases.

Secondly, the special value of nursing, and

particularly of hydrotherapy, stands out from the results of the treatment of alcoholic psychoses, which though they form only about one-ninth of our problem of first care, represent almost nine-tenths of our early therapeutic results.

Thirdly, the recoveries in the so-called "recoverable" forms of insanity take too long to be represented in any numbers in this first hundred of recoveries, and it may be suspected that the average hospital stay of three to four weeks is not sufficient for recoveries in groups like manic-depressive insanity.

Fourthly, the effect of psychotherapy as applied in the Psychopathic Hospital, is not a rapid effect.

Fifthly, the percentage of syphilis in the recovered cases is exactly that of the total intake of the hospital, so that this factor cannot be said to influence treatment unfavorably (two questionable syphilitic cases are more fully discussed and reference made to Kraepelin's analysis of allied conditions).

Sixthly, some index of the activities of our after-care service is afforded by the fact that nearly half of the patients either resorted voluntarily or (in some cases) were brought to the out-patient department at one or more periods subsequent to the discharge.

Seventhly, the need is apparent of nurses who shall build their psychopathic training on a sound basis of general hospital work (letter quoted, to the committee of superintendents dealing with the general aspects of the nursing problem for the insane).

IMPRESSIONS OF A GENERAL HOSPITAL NURSE BEGINNING WORK IN THE PSYCHOPATHIC HOSPITAL (BOSTON, MASSACHUSETTS).*

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I FEEL that I really have no right to a place on this program since I have been working in the Psychopathic Hospital less than three months. During this time, however, I have seen 500 cases of mental disease and of suspected mental disease,—a group which the physicians tell me is a very representative group. I wish to give a few impressions of the Psychopathic Hospital work from the point of view of a general nurse.

What struck me on coming to the Psychopathic Hospital was the fact that much less mere physical activity is demanded of the psychopathic hospital nurse but, on the contrary, much more in the way of endurance. A much larger number of nurses is necessary for a given number of psychopathic patients than for a given number of general hospital patients.

It would seem that one essential for a psychopathic hospital nurse is *vigilance*, so that emergencies like escapes, suicides, homicides, and the like, may be averted.

Of equal importance is *tact*. To illustrate: For many days a disturbed patient refused to eat her meals at the regular hours. It was discovered that the reason for this refusal was that the patient disliked the arrangement of the trays. When the nurse took the patient to the serving-room and permitted her to set her own tray with the same things in the same way, the patient became perfectly satisfied.

In addition to tact, the psychopathic nurse must possess *patience* to an almost unlimited degree. To illustrate: One evening recently a patient was admitted in a resistive and abusive condition. It took two nurses two hours to prepare the patient for bed, during which time the resistiveness and flow of abusive talk continued, but when the two nurses were going off duty the patient sat up in bed and said, "Good night, dears, I will see you in the morning."

Besides tact and patience, *sympathy* plays an important part in the success of the psychopathic hospital nurse. The patients themselves see this and tell each other about it. The embodiment of vigilance, tact, patience, sympathy and thorough conscientiousness in the discharge of duty would obviously be found only in the highest type of woman and in very exceptional men.

As a general hospital nurse I have been perhaps prejudiced in favor of the general hospital nurse's training as a basis for psychopathic hospital work and possibly for all those who wish to engage in the care of the insane. One reason for this is that the young women who go into general hospital training are as a general thing of the best, only picked candidates who have a certain amount of schooling being accepted as students. Again, a young woman going into the general hospital training school goes in at an impressionable age. She is under strict and almost military discipline for a period of three years, during which time patience and obedience are inculcated. The candidate for general hospital training goes voluntarily with a definite aim in view. She is stimulated by pride and her training beyond question develops character. The training is varied, and the nurse comes in contact with all kinds of individuals and emergencies.

The director, Dr. Southard, and the chief-of-staff, Dr. Adler, are insisting upon what they call the *constructive* type of psychopathic nurse, as opposed to the existing type (which may be called perhaps the *vigilance* type). It seems to me that the basis for securing the sort of "con-

* Being Contributions from the Psychopathic Hospital, Boston, Mass., Number 49 (1914.15). The paper was read at the Conference on Modern Developments in Mental Nursing at the Psychopathic Hospital, February 16, 1914. The Appendix was prepared in July, 1914. *Bibliographical Note.* The previous contribution was by E. E. Southard (1914.14) entitled "Analysis of Recoveries at the Psychopathic Hospital: I, One Hundred Cases, 1912-1913, Considered Especially from the Standpoint of Nursing," published in the BOSTON MEDICAL AND SURGICAL JOURNAL, vol. CLXXI, p. 478.

structive'' psychopathic nurse that Dr. Southard and Dr. Adler desire to develop, is the general hospital nurse's training. It is very likely that this general hospital training may need to be supplemented by post-graduate training. Of course it may be too much to ask that the custodians of all types of insane should be highly trained; but should not at least the head nurses of wards of insane hospitals and asylums of all types be general hospital graduates? The best characters that we meet among the nurses of insane hospitals who have *not* had general hospital training are persons who are by nature good nurses but who, for various reasons, have not been able to take the general hospital course. They would all have benefited by the general hospital course.

I have talked almost exclusively about the female nurse. The *male* nurse will surely have his place, as in the nursing world in general, if he can produce training equivalent to that of the female nurse. Even if we do not go into the question of the native endowments of the sexes for this work, it is clear that present conditions will not produce enough men of the proper nature and training. My work here with the most difficult types of patients has convinced me that there are hardly any emergencies on the male wards that cannot be met by resolute women, if faithful orderlies are at hand, but although there may never be enough male nurses of the proper nature and training, let us encourage the development of as many of them as possible.

APPENDIX.

Upon reviewing the work of the nursing service at the time of my going off duty in July, 1914, the director has requested that I sum up the work accomplished in the directions mentioned in my talk as above given and in the directions urged by Miss Nutting and the other speakers at the Nursing Conference of February 16, 1914. In this appendix I place certain things of interest in this connection.

In December, 1913, the nursing staff of the Psychopathic Hospital consisted of

Graduate nurses of state hospitals	10
Pupil nurses	9
Attendants—female	9
Attendants—male	25
Total	53

At the present time, there are:

Graduate nurses of general hospitals	9
Graduate nurses (taking post-graduate course)	1
Graduate nurses of state hospitals	2
Pupil nurses (at Boston City Hospital)	3
Attendants—female	16
Attendants,—male	20
Total	51
Total number on duty	48

In January, 1914, the nurses of custodial type at the Psychopathic Hospital were, as far as seemed advisable at that time, replaced by graduate nurses of general hospitals. The night supervisor of nurses (who visited only female wards) was given the added responsibility of the male wards. In that way, direct supervision of the treatment ordered by the physicians during the night was assured. The fact that 98 was the daily average number of patients in the hospital during the month of December, 1914, 31 of these being bed patients and 23 receiving drug treatment, shows that careful medical nursing supervision both day and night was necessary. Rules were made and put into effect forbidding attendants to administer any drugs or give any treatment except under the direction of the head nurse. Because of the special situation in the Psychopathic Hospital where there are few or no ''chronic'' patients who may act as ''workers,'' the policy of employing maids to do the housework in the wards has been adopted so as to decrease the domestic duties of the nurses and give them more time for the medical side of nursing.

Although we are largely dependent upon the custodial or attendant type of nurse for the care of our patients, the nursing in all of the departments is carefully supervised by general hospital trained nurses. The following report of the general nursing for the month of June will convince one that there is need of highly trained women and of much special and more than ''vigilance'' nursing in a psychopathic hospital.

Total number of admissions for month of June	172
Total number of patients cared for (by days)	2686
Daily average number of patients	90
Number of bed patients cared for (by days)	590
Daily average patients (bed)	10
Special diets	3
Esophageal and nasal feeding	3
Enemata: cleansing, nutritive, medicinal	31
Catharsis	176
Catheterization	3
Surgical dressings	7
Medication	232
Urine specimens, 24-hour amounts	7
Baths:—	
Tub	510
Bed	148
Continuous	186

This amount of ''constructive'' nursing could not be performed by nurses and attendants whose time was distributed as under the old system. I will refer to an extract from the Director's First Annual Report (1912) of work at the Psychopathic Hospital, where he states (Fourth Annual Report of Trustees of Boston State Hospital, Public Document 84, page 35) that,

"Under the conditions prevailing at the Psychopathic Hospital (1912), a careful statistical study has shown a distribution of time spent by nurses and attendants as follows:

Average Time Spent by 25 Nurses and Attendants in a Week.

	Hours
Nursing duties	24
Domestic duties	23
Executive duties	12

"Thus for every hour spent in nursing another hour is spent in domestic work and a half hour in executive work. It is proposed by the employment of ward maids to raise the amount of nursing service per patient."

That "vigilance" nursing has not been neglected by the General Hospital nurses, the accident reports will amply prove. In fact, a really remarkable improvement has been registered.

The first class of the Psychopathic Hospital Training School for Postgraduates was formed on April 1, 1914. The course comprises demonstrations in hydrotherapy, clinical instruction in the wards, weekly lectures by members of the staff, weekly classes in psychopathic hospital methods by the superintendent of nurses, sixteen clinics in special work and sixteen days in the social service department, under the direction of Miss Jarrett, the chief. Besides the regular lectures there have been special lectures on the different branches of public health nursing, prenatal, district, milk and baby hygiene, store, school, and factory. Judging from the number of letters of inquiry regarding post-graduate work, scientific nursing of the mentally ill is beginning to attract graduate nurses of general hospitals.

Although little or no major surgery is at present done at the Psychopathic Hospital, there is a good deal of minor surgery, accidental and special work, as the operating room report for the month of June will show. The nursing service in that department has been greatly improved by the appointment of a graduate nurse specially trained in surgical technic.

Work done in the operating room during the month of June, 1914:—

Salvarsan	30
Lumbar puncture	53
Serum withdrawn for Wassermann test	170
Gynecological examinations	8
Incision of carbuncles	5
Laceration of face	1
Septic toe treated	1
Tetanic infection of thumb treated	1
Needle removed from breast	1
Colles fracture	1
Dressings	32

In April the occupational work was taken over by the nursing department, and although there remains much room for improvement in this work, a separate report will show that results have been not wholly unsatisfactory.

PELLAGRA AND ITS SYMPTOMS; THE IMPORTANCE OF MOUTH AND GASTRO-INTESTINAL LESIONS.*

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[Danvers State Hospital Contribution, No. 51.]

PELLAGRA, the latest addition to the list of human ills in the United States, presents many features of special interest as well to the dentist as to the medical man specially interested in diseases of the mouth and digestive system. Prominent among the first manifestations of the disease are symptoms involving the alimentary tract; and the mouth, by reason of its ready access for observation and study, furnishes some of the most demonstrable evidences upon which to base a diagnosis. In the prodromal stage it happens not infrequently that the patient's chief complaints centre about the gastro-intestinal system. The earliest and most common of these often refer directly or indirectly to some mouth or throat condition. As pathognomonic signs of the fully developed disease, the mouth lesions are sufficiently characteristic to rank almost equal in importance with the skin eruption. It is quite conceivable that, in seeking relief from some of his troubles during the early stages of pellagra, the sufferer, in many instances, should elect to call upon his dentist before his physician.

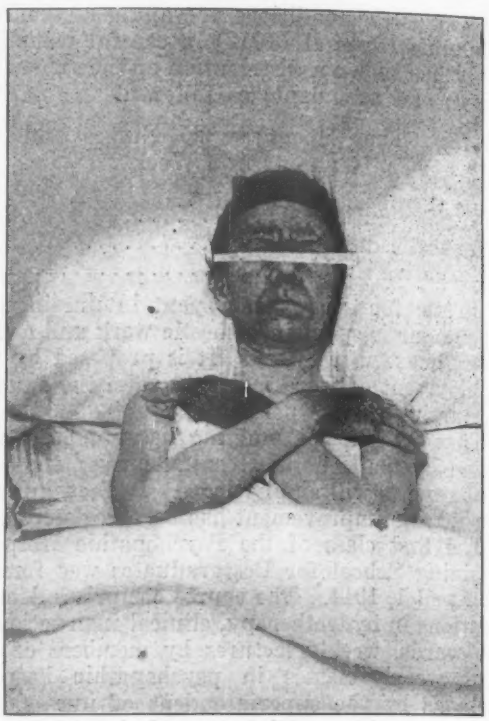
To serve the turn of instruction, a discussion of any of its features involves a general consideration of this disease. To the average layman, its name conveys no meaning. Many even among our well-informed medical men have but a vague notion of its clinical characteristics. For this the reason is quite apparent. Until the present generation pellagra had scarcely appeared within the circle of the American physician's experience. On this side of the Atlantic it was practically unknown. Less than ten years ago few, indeed, would admit the possibility of the existence of pellagra in the United States. In our Southern states the men who reported the first cases known in our land were accused of diagnostic blundering. Since that time the rapid development of the disease in those and other sections had dispelled all doubts regarding its existence in the United States. Its prevalence has reached a point where professional and public concern expresses itself in government-appointed commissions for investigation and study, and in at least one state, in the building and equipping of a hospital specially for pellagrins. The time has come when pellagra commands the thoughtful attention of every one concerned in the health and welfare of our citizens.

Already in some parts of this country this

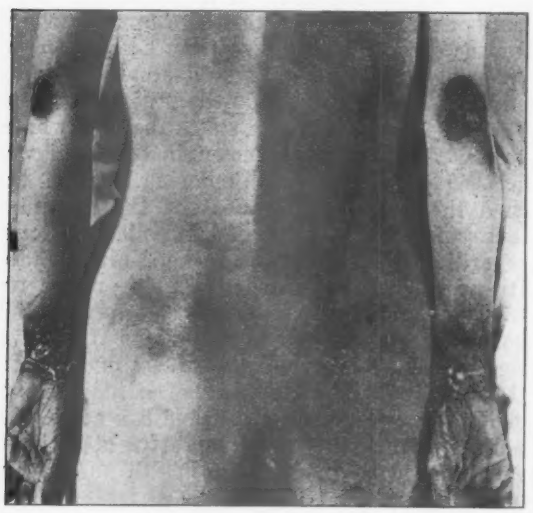
* Read at the annual meeting of the Essex County Dental Society, May 20, 1914.

disease presents a serious and portentous problem. An idea of the hold it has obtained in the short space of seven years since it was definitely recognized in Alabama and South Carolina, may be gained from the report of the United States Public Health Service, which places the number of deaths from pellagra in the United States in the years 1907 to 1911 at 6,205. From the same source we learn that, during these years, a total of 26,000 cases was reported by physicians and institutions in the Southern states alone.

Until 1910 New England seems to have been free from this disease. If it did exist, it seems to have escaped recognition. And its very obvious characteristics could hardly fail to excite attention under any condition except rare and scattered occurrence. But since 1910 every one of our New England states has reported cases of the disease. It cannot be said that, as yet, the situation as respects pellagra in this section is alarming; and there seems to be some basis founded upon the experience of other countries for a certain degree of faith in the immunity attributed to the geographic, climatic and social conditions under which we live. But where the etiology of a disease is unknown, little dependence is to be placed upon factors of precedence and analogy. That cases of the disease have occurred at all in New England is sufficient reason for concern. In view of the experience of other countries where pellagra prevails, its belated appearance furnishes no index of the extent to which it may prevail in the future. The fact that it was unknown here until three or four years ago argues as little for our security as did the promise of immunity based upon non-recognition of the disease prior to 1907 in those Southern and Central states where now its ravages are widespread. To those who have looked into the history of pellagra, the occurrence of sporadic cases is ominous of more serious conditions to follow. Its tendency is to occur for a variable period in scattered, sporadic form, generally followed by an endemic or epidemic course.



Contrast between affected and healthy skin, symmetrical erythema, pigmentation and areas of vesication of hands. Involvement of skin of the lips, chin, bridge of nose, and a band across forehead. Dry exfoliating erythema and pigmentation of neck—"the collar." (*Flashlight photograph.*)



Symmetrical lesions of skin of elbows, and flexor surface of wrists —"the cuff." Symmetrical patches of dry scaling skin of back. Skin about anus irritated and excoriated.

Since April, 1913, six cases of pellagra have come under observation in the Danvers State Hospital. With a single exception, each patient came with the disease from the community. There is every reason to believe that the mental condition leading to the commitment of these persons to the hospital depended largely upon this disease. None of these cases were recognized prior to commitment, a fact suggesting a suspicion that pellagra may be more common in the community than is generally supposed, and furnishing ground for the fear that the time may not be long when it will prevail more extensively. Treatment specially directed to this condition had not been instituted, in the stage when treatment offers any prospect of results, the trouble being unsuspected. Leaving aside the serious question of future possibilities, and viewing the matter solely from a therapeutic standpoint, this emphasizes the necessity of familiarizing ourselves with the characteristics of this disease, and the importance of recognition of its early symptoms.

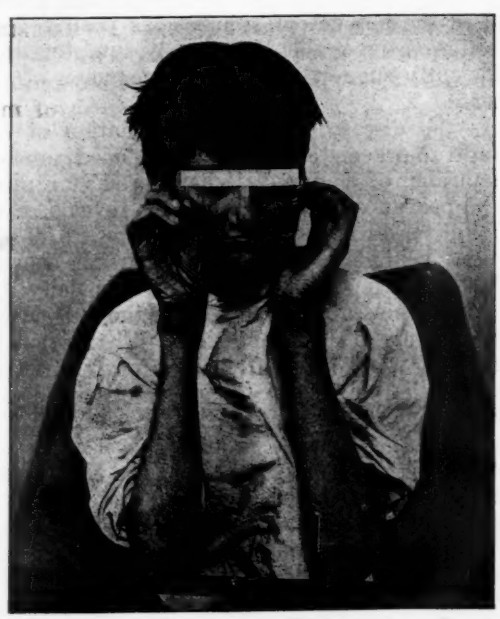
The characteristics of pellagra are a peculiar, symmetrical skin eruption; gastro-intestinal disorders, involving the mouth, stomach and intestinal tract; general debility and emaciation; and various nervous and mental disorders. Though the skin eruption is the most obvious

A severe case of the "wet" form of pellagrous dermatitis. Extensive exfoliation with raw, bleeding surface and ulcerated patches on dorsa of hands, lesions of skin about mouth, bridge of nose, and forehead.

manifestation, the gastro-intestinal symptoms are almost equally important for diagnosis. In practically all cases, lesions of the mouth co-exist with the striking skin condition which has given the disease a name. The eruption is, however, the essential diagnostic feature. Only in relation to it are the symptoms referable to other parts of the system of significance. The order of appearance of symptoms and lesions is variable, and in many cases the disorders of the mouth and gastro-intestinal tract claim chief attention because of their severity; while in some cases the eruption of the skin may be so slight as to cause little interest or concern aside from its diagnostic import.

The disease has a prodromal or incubative stage extending over a variable period of months or years. As a rule the symptoms have their beginning in the spring months. During this early stage the patient generally suffers from indigestion, and spells of diarrhea. There is an ill-defined feeling of ill-being, gloomy forebodings that something is seriously wrong, nervousness, lack of ambition, and innumerable neurasthenic complaints. Peculiar sensations, fleeting aches and pains, colicky attacks, and neuralgias occur. Oftentimes the patient complains of weakness of the lower limbs, attacks of dizziness, and in the dark there is apt to be difficulty in walking, as a result of beginning anesthesia of the lower extremities. Dryness of the esophagus and difficulty of swallowing are not uncommon complaints. The appetite is capricious, certain articles of diet, usually tolerated, causing much discomfort. The sense of taste is often perverted, and the flow of saliva is increased. One of our patients was for a long time made miserable by a distressing sensation as of worms under her tongue, and attributed her profuse expectoration in part to her disgust. Significant among these early symptoms is a "burning feeling" in the mouth and stomach. These troubles the patient is apt to assign to strange and unusual causes. Quite commonly the symptoms are referred to certain foods or medicines taken, or to something about the teeth. One of our cases, in the early stage of the disease, after frequent attention by her dentist without relief, formed the idea that a bit of filling had lodged in her throat; consulted specialists, and insisted upon an x-ray examination. Another believed that the material used in filling her teeth had poisoned her mouth, and given rise to all her discomforts.

A careful investigation of the early histories often shows that these patients have been troubled with irritations and slight inflammations of the skin of the hands, perhaps regarded as nothing more than a sunburn or a mild eczema, and therefore exciting little remark. The disturbance of the digestive system, the occasional attacks of diarrhea, and the oral disorders occupy much greater attention. Upon these symptoms is laid the burden of the patient's complaints and "run-down" condition. Frequently the patients consult their dentists, attributing their uncomfortable oral sensations to disorders of the teeth, alveoli or gums. Not uncommonly it happens that their physicians, puzzled by their peculiar complaints, advise a



Iodine-like staining of affected skin following attacks of pellagrous dermatitis. Flexor surface of wrists smooth, but deeply stained after healing; skin of elbows roughened, dark colored. Dry, rough, brownish-colored skin of chin and lips. Condition following two attacks.

Appearance of gauntlet on flexor surface of wrists. Well-marked line of deeper pigmentation (X) limiting upper border of lesions. Note symmetry of areas on radial sides of wrists where desquamation is completed, and duplication of vesicles and ulceration on either wrist. (Photo taken after death of patient.)

dental examination. No one but a most reckless guesser could venture a positive diagnosis at this stage; but while in the prodromal period and in the absence of skin lesions positive recognition is impossible, these early symptoms are sufficiently suggestive to excite suspicion of the disease.

As the disease develops, examination of the mouth shows an abnormally reddened mucous membrane, of a glazed, "cherry red" or pinkish appearance. Close inspection reveals in almost all cases aphthous spots on the tip of the tongue, behind the gums and about the fauces. The alveolar margin of the gums is usually distinctly inflamed, and pyorrhea is the rule where the teeth are in bad condition. When artificial teeth are worn, no matter how perfectly they may fit, the points of contact are nearly always sore and ulcerated. Salivation is profuse. The lips present the same reddened appearance as the mouth; generally the angles are slightly fissured and sore, and the skin at these points is roughened and scaly. In a more advanced stage the mucous membrane may be of a greyish appearance; vesicles and superficial ulcerations may form, finally ending in sloughing and complete denudation of the epithelium.

The appearance of the tongue is quite characteristic. Even at an early stage, there is some slight swelling. Where it touches the teeth areas of ulceration are usually found. The edges and tip are glazed and smooth and denuded of epithelium, the upper surface showing a greyish central coating, sooner or later resembling somewhat a false membrane. Later on the whole tongue loses its superficial epithelium; it has a decidedly red and bald appearance, soon becoming quite smooth and glazed. Except in rare cases there is great tenderness and soreness of the mouth; even protrusion of the tongue from the mouth is painful, and swallowing is difficult.

With these changes in the alimentary tract occurs the skin eruption, the distinctive sign of the disease. Usually it shows itself first as a bright red erythema upon the backs of the hands. In the beginning it closely resembles a dermatitis from sun-burn, with which it is often confused. Indeed, exposure to the sun seems to have a decided influence in bringing it forth. There is generally slight swelling of the parts affected. The patients complain of a burning feeling in these parts. In the course of a few days these areas show increased pigmentation, becoming of a darker, coppery color. The line separating the healthy from the affected skin is fairly well marked. The epidermis becomes thickened and rough. In the course of two or three weeks it begins to shrivel and desquamate. By this time its color is so dark as to form a marked

Marked hyper-pigmentation, dry, roughened scaly skin, fissures and pustules in webs of fingers.

contrast to the healthy skin, from which it is abruptly and distinctly demarcated. The hue of the affected parts is not unlike that of an old iodine stain of the skin. Fissures about the knuckles and in the webs of the fingers, which bleed easily, and vesicles and bullae, which may break and give rise to superficial ulcerations, occur. The stage of desquamation may persist for weeks, and when it is completed, the new skin is of a delicate pinkish appearance, with a fairly well-defined dusky, pigmented border.

The eruption is always symmetrical. When it appears on one part, the same condition is found duplicated upon the corresponding part on the opposite side of the body. Nearly always it begins upon the hands, generally about the knuckles, from which it extends downward to the terminal joints of the fingers, and upwards to or above the wrist joints. In all of our cases, the eruption appeared upon the anterior surface of the wrists, forming what is called the pellagrous "cuff." In most of our cases, it appeared upon the posterior surface of the elbows. In one case it extended around the neck, giving somewhat the semblance of a collar. Quite often the upper eyelids, bridge of the nose, and the skin about the mouth are affected. It may appear upon the knees, feet and legs, forehead and cheeks. In some cases it involves the skin more or less generally.

Diarrhea, mild or severe, with peculiarly offensive smelling stools, almost invariably occurs with the eruption. Colic, burning discomfort in the lower bowel, frequent attempts to expel the contents of the intestine, irritation and excoriations of the skin about the anal opening often accompany this condition. The patient rapidly emaciates. More or less marked mental and nervous disorders occur in all cases. Headaches, dizziness, aching pains, burning sensations, muscular spasms, seizures resembling epilepsy, impairment of the sense of touch, etc., are among some of the neurological symptoms more or less frequently noted. The mental condition is one of settled gloom and despondency. Irritability, unreasoning discontent, strange antipathies, forebodings of impending misfortunes, add to the burden of the patient's misery and trials. In many cases, insanity develops in the early stages of the disease.

The mental and neurological symptoms in pellagra present abundant evidence of a toxic origin. The cause of the disease is as yet unknown, but the serious disorders of the digestive tract suggest its connection with this system. While the changes in the skin are the most obvious and striking lesions of pellagra, I believe that, in many cases, some of the earliest manifestations may be observed in the mouth. In the cases which came under our observation, the oral conditions existed and developed coincidently with the skin lesions. The careful examiner should be able to detect changes in the delicate mucous membrane of the mouth in many cases as readily as those in the skin. In the skin and mucous membranes the lesions are similar and related. The initial erythema of the skin corresponds to the beginning glossitis and stomatitis. The denudation of epithelium of the tongue and mouth corresponds to the thickening and desquamation of the skin, and these processes occur about the same time. The disorders of sensation are usually first noticed, and are more severe, in the mouth and stomach. No one, however, can be sure of the diagnosis of pellagra without the characteristic erythema of the skin, nor is this symptom alone pathognomonic unless accompanied by mouth and gastro-intestinal disorders.

Clinical Department.

HYSTERECTOMY FOR HEMORRHAGE: THREE DIFFERENT INDICATIONS.

BY H. B. PERRY, M.D., NORTHAMPTON, MASS.,

AND

E. E. THOMAS, M.D., NORTHAMPTON, MASS.

THE purpose of presenting these cases is to emphasize the value of uterine hemorrhage near the menopause as an indication for hysterectomy. In view of the recent decision of all the representative divisions of the medical profession to give the widest publicity to the early symptoms and operative treatment of cancer, especially of the uterus, we are pleased to note that one of these cases has probably been permanently benefited by an early operation for

noticeably increased bleeding from the uterus. But the other two cases also illustrate the value of removing the uterus promptly at or near the menopause, when curettage has proven futile, because in the one instance mere scraping the interior of the uterus cannot entirely control bleeding due to inflammation of the adnexa; and in the other, rendering patulous the partially closed mouths of sclerotic blood vessels with a sharp instrument must tend to increase, rather than control, subsequent hemorrhage.

The cases present the following histories:—

CASE 1. Mrs. Y., age 38, born in Ireland, housewife, has had three children, youngest age eight. Menstruation regular. After last confinement the puerperium was noticeable because patient was delayed in bed longer than usual, with fever, pelvic pain and foul lochia. Case referred by Dr. C., with profuse, irregular bleeding from the uterus. Complains of dull, dragging pain in pelvis, and copious bleeding at periods, which are increased in length; and induced hemorrhages after intercourse. Patient is well developed and nourished, chest examination negative, as is also abdominal. Vaginally, examination of the pelvis revealed the uterus fixed and immovable, conglomerate masses on either side, close to, and apparently attached to the uterus. On admission to Hospital, temperature was 99.8. A tentative diagnosis of pelvic inflammatory disease was made, and a laparotomy was performed. Examination of the pelvic contents, with patient in Trendelenburg position, showed the uterus in the median line, possibly slightly enlarged, with each tube and ovary involved in separate masses destroying their identity, and adherent to the intestines and uterus, the whole presenting a general picture of a low grade inflammation involving the entire adnexa with surrounding tissues. A hysterectomy seemed plausible, and after a careful digital and instrumental dissection of the various loops of gut, including the rectum from the pelvic tumor mass, a supravaginal amputation was performed together with a double salpingo-öophorectomy. Convalescence was uneventful; patient was up on the twelfth day, and home on the sixteenth. The specimen showed the usual condition of chronic inflammation and congestion. The uterine cavity was four inches long.

CASE 2. Mrs. T., age 48, born in Maine, housewife, has had two children, youngest age 20. Menstruation monthly, no recent cessations. After last confinement had a vigorous post-partum hemorrhage requiring intra-uterine manipulation by attending physician to control. Aside from that the previous history is entirely free from any serious illness or accident. First seen in consultation with Dr. S. at her home because of pernicious and depleting uterine hemorrhage. Present illness began about eighteen months ago; had rather active hemorrhage from uterus; bleeding continued periodically for a time with gradually lessened intervals until flowing became constant, increasing on exertion, fairly quiescent in bed. Curettage by family Dr. S. three weeks before consultation. Patient in bed and in apparently weak condition. The most noticeable feature of her appearance was the profound anemia, striking evidence of which was the peculiar "russet apple" color of the skin, and intense pallor of the conjunctivae and lips. Patient is well developed, poorly nourished, and looks older than the given age. Lungs negative; heart gives off a soft hemic murmur over apex; no tenderness over liver, no jaundice nor ascites; abdominal examination negative. Conjoined examination showed a relaxed vaginal outlet, uterus large, hard, regular in outline over fundus, and freely movable; no masses palpable, nor pelvic tenderness. Although patient was quite weak, the fact that she was flowing to no small degree after a recent curettage rendered a laparatomy advisable. Patient was accordingly brought to the Hospital in the ambulance. On admission her temperature was 100.2, pulse 136. She was observed for four days, given soft, nourishing diet, and on the fifth day was sent to the operating room with a temperature of 99 and pulse 116. Unnecessary handling and loss of time was dispensed with by placing patient immediately on operating table and anesthesia begun at once. A supra- vaginal hysterectomy was performed in practically 35 minutes, and was uneventful, except for the fact that both uterine arteries were very prominent, tortuous, and were raised in bas-relief along the sides of the uterus. A diagnosis of uterine fibrosis was made after gross examination of the specimen, which cut hard under the knife and gave other evidences of atheroma of the vessels. The cavity was five inches long; the endometrium was smooth and glossy. There were no signs of either previous or present infection. Convalescence was practically uneventful—the temperature reached 100 daily for the first three days only, and the pulse averaged regularly about 110—patient was up on the twelfth day, home on the sixteenth, and was discharged in good spirits and improved health with a temperature of 98 and pulse 90.

CASE 3. Mrs. C., age 42, born in New Hampshire, housewife, has had four children, youngest age 10. Menstruates regularly. Family history barren of any details relating to present condition. Previous history shows an independent infection by the tubercle bacillus early in life, not subsequent to either pneumonia or pleurisy, neither of which patient has had. The husband has been tuberculous but has an arrested type at the present time; and one child was recently operated upon for bone tuberculosis of the foot, Dr. Perry removing the os calcis, cuboid and portions of the scaphoid and tibia. Present trouble began four months ago with increased periodic bleeding which has now become a constant ooze—the loss of blood, however, was not sufficient to incapacitate her, and no alarm was felt, for the patient had become one of the great sorority of women who are nursing the fond delusion that it is no uncommon thing for a woman to bleed a great deal at the "change of life," whether they are healthy or ill.

Patient is a frail-looking little woman, fairly well nourished; the tops of both lungs show evidences of healed tuberculosis; heart examination is negative as is also that of the abdomen; has good appetite and feels first-rate. Vaginal examination shows a scarred cervix free from erosions; bimanually, the uterus was found to be in normal ante-position, large, soft and freely movable. No lateral masses palpable. A curettage was suggested, but patient was reluctant to go to the Hospital; after some persuasion, however, she agreed, but refused to submit to any cutting operation. A curettage was completed with one-half oz. of chloroform. The scrapings were very plentiful, similar to the con-

dition found in retained secundines after an incomplete abortion, and they resembled adenoid tissue as it occurs in the naso-pharynx. The following is the pathological report from Dr. W. T. Councilman, Boston:

I. *Material*: *Uterine scrapings.* The curettings show microscopically very marked glandular proliferation which may well be from a papilloma. There is, however, also marked proliferation of the glandular epithelium, in places bordering on the atypical. While this is not enough to warrant a diagnosis of carcinoma, it is a dangerous tumor and the patient would be much safer without it. We would be much interested in additional tissue from the case.

The patient was watched for a week, but the bleeding continued with rest in bed. After interpreting the findings of the above report to the husband and advising the complete removal of the uterus, including the cervix, consent was obtained and a pan-hysterectomy was done. No apparent involvement of any tissue outside the uterus could be found. The subsequent convalescence was not noteworthy. Dr. Councilman's final report is as follows:

II. *Material*: *Uterus and adnexa.* Specimen consists of a large, spongy uterus which is pale and soft. The cervix shows several catgut sutures from recent operation. The endometrium is extremely rough and irregular with several cavities extending into metrium. These cavities contain a thick, yellow, purulent material which also covers the surface of endometrium. The tubes are swollen, the walls thickened and soft and lumen contains also a thick, yellow pus. The ovaries are enlarged, contain multilocular cysts, some of which contain blood clots. The broad ligaments show several areas of hemorrhage.

Microscopical examination:—Carcinoma of uterus. Chronic salpingitis and öophoritis with hemorrhages into tissue.

To summarize, we would like to re-state for emphasis what every medical man knows, and what every woman should know, that cancer occurs most frequently in the uterus, develops most commonly near the menopause, its most prominent early symptom is abnormal bleeding, and that complete extermination of the growth is possible in any organ which can be removed before the rapidly growing condition spreads to the surrounding tissues. Failure to relieve or stop this lawless growth in the past, has been in a great measure due to either the tragic coyness of mature women to submit to a simple examination when the premonitory symptoms first present themselves, or they have suffered from the fatalistic idea that all kinds of unnatural bleeding must take place before menstruation ceases entirely, and they consequently accept the "change of life" as a period of necessary invalidism. If medical education succeeds in destroying that historical "bête noir" permanently, perhaps we will be able to save more of our best types of womanhood for the most delightful period of their lives.

It is worthy of note that in women who have borne children and who subsequently develop cancer of the uterus it usually appears first in the cervix, while in women who have never experienced a full term pregnancy, the disease more often attacks the fundus, Case 3 being an exception to these observations.

Even eliminating cancer, undue hemorrhage near the menopause should be thoroughly investigated and followed closely, because of the possibility of any one of these conditions, which demand a hysterectomy for absolute relief.

In disease of the adnexa the question often arises, and is pertinent, whether or not the uterus should be removed at the same time. We are firm in our belief, basing our opinion on the after-results of previous cases, closely followed and observed, that to leave a uterus after removing both tubes and ovaries would surely jeopardize that patient's future comfort and well-being; because a uterus that has been accompanied by diseased adnexa is of itself diseased and infected by the same pathological micro-organism, and it will ultimately become an inert foreign body, or will prove itself a focus from which arise infections that may become general; or the organ may, because of the irritation that must exist, become the seat of malignancy. The removal of the uterus adds but little to the danger and shock of the operation, and should, therefore, be included in the complete operation.

Reports of Societies.

AMERICAN GYNECOLOGICAL SOCIETY.

THIRTY-NINTH ANNUAL MEETING, HELD AT BOSTON, MAY 19, 20 AND 21, 1914.

The President, DR. J. WHITRIDGE WILLIAMS, of Baltimore, in the chair.

FORWARD FIXATION OF THE CERVIX AS A PREDISPOSING CAUSE OF SOME RETRODEVIATIONS OF THE UTERUS, AND AN OPERATION FOR ITS RELEASE.

DR. EDWARD REYNOLDS, of Boston, stated that the supports of the uterus were largely muscular, with the exception of the forward attachments of the cervix. The shortness of the latter formed an essential element in the anteflexion of the cervix. Firm, forward fixation of the cervix while the fundus was comparatively movable, created a predisposition to the retro-deviations. The release of the forward fixation of the cervix as a preliminary to the performance of the standard operations for the retrodeviations added greatly to their percentage of success.

The author described in detail the operation he performed.

DISCUSSION.

DR. HERMAN J. BOLDT, of New York City, stated that for what was called anteflexion of the cervix by Dr. Reynolds, and he believed by all other writers, he had been accustomed to use the term retroversion

of the cervix, considering the direction of the cervix from the position of the external opening. It was a condition which was always congenital unless caused by pelvic inflammation.

Heretofore he had always looked upon the shortened, and not infrequently indurated condition of the sacro-uterine ligaments as being the main factor in causing this position of the cervix, and he had, on a number of occasions in the last twenty years, cut the shortened ligaments to overcome the backache of which many persons so afflicted complained, several times relieving this symptom by the surgical intervention.

That the holding forward of the fundus was due to the action of the round ligaments was, in his opinion, questionable in the greater number of such instances. These ligaments were not taut, except when the bladder and the rectum were full. The condition was usually an association of anteflexion of the body of the uterus with a retroversion of the cervix; and unless there be an atrophy of the anterior cervico-corporal junction, probably as a result of long standing of the condition, we would find the tissue at this junction unyielding; indurated, if we might call it so, since it was impossible to straighten it permanently by manual or mechanical means. Hence the mechanical dysmenorrhea of which many patients frequently complained. The usually present shortened anterior vaginal wall was part of the congenital malformation and was, of course, an additional factor in causing the retroversion of the cervix.

He had always regarded the shortened and thickened sacro-uterine ligaments to be a low-grade inflammatory process, a parametritis posterior. Furthermore, when the condition was of long standing and more or less atrophy had taken place in the interior part of the cervix at the flexion angle, due to long duration and not infrequently increased size of the body of the uterus, the organ could not straighten itself by any physiological factor brought to bear upon it. We might indeed see the uterus assume a position farther backward in the pelvis, thus constituting a retroposition; and then the intraabdominal pressure might cause a still more acute flexion angle.

DR. HENRY T. BYFORD, of Chicago, said he had usually regarded this condition of forward fixation of the cervix with retroversion of the uterus very much as the rest of the members. He had in many cases separated the bladder from the uterus quite extensively through a transverse incision and had drawn the parts together from the side to the median line, but he had not done exactly the same operation as that described by Dr. Reynolds. He had operated with the idea that when he drew the connective tissue from the sides of the cervix as far back as he could, he was drawing the tissues taut, getting support in front of the cervix which would hold it back more, making lateral support, drawing from the connective tissue around the sides of the cervix, and in that way replacing the cervix backward by the support of the connective tissue to the side of the cervix, instead of releasing the cervix merely from the traction of the anterior abdominal wall.

DR. I. S. STONE, of Washinton, D.C., said that it seemed to him Dr. Reynolds' suggestion had been more or less covered in effect if we remembered the Mackenrodt fixation operation for retroversion. That is, denudation and separation from the anterior vaginal wall, dropping forward of the body of the uterus and fixing the anterior vaginal wall would answer the same purpose and overcome permanently the retroversion.

DR. J. WESLEY BOVEE, of Washington, D. C., stated that about fifteen years ago he began doing this work. He received his inspiration and instruction from one of the editions of the work on gynecology by Dr. William H. Byford, in which he (Dr. Byford) stated that if the cervico-vaginal junction was less than two and one-quarter inches from the pubic arch, it was abnormally short and should be remedied. Taking his instruction from that, he devised procedures, working on the lower ligaments of the uterus. He studied the subject carefully and found we had another characteristic in certain anomalies of development to deal with, that is, an abnormally high attachment of the utero-sacral ligaments to the cervix and abnormally low attachment of the anterior wall of the vagina, so that he realized many of these cases needed to have the defects remedied, and he did this by severing the anterior wall from the cervix, attaching it to a higher point and severing the utero-sacral ligaments from the cervix and attaching it to the lower point, which changed the leverage of the anterior wall more from the junction of the cervix with the body, thus giving stronger posterior leverage on the posterior wall of the uterus. He did this procedure in two ways,—one very much after the plan mentioned by Dr. Reynolds, by detaching the anterior wall from the cervix and attaching it again higher, and the other by making a transverse incision and lengthening the anterior wall, except he added this modification: He did it with interrupted sutures, and he inserted a small amount of soft rubber on account of oozing into the opening between the cervix and the bladder, which was attached to a piece of gauze with suture, the gauze being placed in the vagina and the gauze, when removed, pulled the rubber drainage out. The utero-sacral ligament operation was beneficial in those cases in which there was traction of the utero-sacral ligaments from inflammation, such as Dr. Boldt called posterior parametritis.

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as we expected to find in a case of acute anteflexion. These were absolutely two different types of cases, which should not come in the same class, for in the one class we had tautness of the utero-sacral ligaments, while in the other there was a laxity of everything and marked elongation of the utero-sacral ligaments.

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In a series of experiments carried out on dogs, he took simultaneous tracings of the intrathoracic pressure, of the intra-abdominal pressure, of the pressure in the inferior vena cava, and of the general blood pressure. The pressure in the vena cava was taken by thrusting a cannula up through an opening in the femoral vein. He raised the intra-abdominal pressure by injecting warm salt solution into the peritoneal cavity. The tracings showed that the intra-abdominal pressure and the pressure in the inferior vena cava were always equal and rose and fell together. When the intra-abdominal pressure was elevated until it was higher than the blood pressure, the circulation through the abdomen was abolished, the abdominal viscera being found bloodless at autopsy.

What was the explanation of these findings? Suppose that the intra-abdominal pressure be increased above the venous pressure, the veins would be compressed and no blood would flow through them until enough blood had been forced into them from the arteries to raise the intravenous pressure to the level of the intra-abdominal pressure.

Experiments had driven him to the conclusion that the chief and essential course which propelled the blood through the abdominal organs was the beat of the heart. The well known fact that pressure upon the abdomen increased the output from the inferior vena cava was not evidence against this view, because such increase was not maintained unless the circulation was greatly depressed. The absence of valves in the abdominal veins prevented any variations in intra-abdominal pressure due to movements of the abdominal walls from pumping the blood toward the thorax with any degree of efficiency, because as soon as the pressure was released there was a regurgitation. That the heart alone was capable of keeping up the abdominal circulation was proved by the experiment described.

The effect of anesthesia so deep as to abolish completely the tone of the abdominal wall was to promote the accumulation of blood in the abdomen and limbs, and in his opinion not uncommonly caused a failure of the circulation during and after operation. It was fortunate that laparotomy was nearly always performed with the patient either in the horizontal or in the Trendelenburg position, for if it were usually done with the patient deeply anesthetized and in the feet-down posture many more fatalities would occur. Operations both on animals and on man were much better borne under an anesthesia so light as to preserve the tone of the muscles. This was the reason why there was much less so-called shock under nitrous oxid oxygen anesthesia than under anesthsia due to more powerful agents.

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DR. YANDELL HENDERSON, of New Haven, said the time was close at hand when in every well ordered and scientific operating room, where ether was used at all, instead of it being poured as a liquid over the patient's face and into his mouth, there would be a device, and it could be a very simple device, on a stand at the elbow of the anesthetist, or over in the corner, or possibly even down in the basement, in which the ether would be volatilized, and from which it would be conducted to the patient's nose and mouth as if it were merely an unusually strong variety of nitrous oxide. That this idea was rapidly gaining recognition and acceptance was evidenced by the insufflation method of Meltzer, the simple and accurate device of the speaker's colleague, Dr. J. M. Flint, and most recently by the anesthetometer of Connell. It was at once a simpler, safer and more scientific procedure to administer the gas which we called ether vapor than it was to handle liquid ether.

Insufficient breathing was an extremely common consequence of etherization. It added to evil influences of a more or less prolonged period of insufficient oxygen supply to the other conditions lowering the patient's vitality. It was clear that the

logical procedure to prevent this was some method of administering ether vapor such as Dr. Gatch showed to be so advantageous as nitrous oxide and also some method of administering a sufficient amount of CO_2 in the air breathed after the anesthesia was ended to stimulate respiration to a more rapid elimination of the ether with which the body was saturated, and to prevent apnea or subnormal breathing, anoxemia and cyanosis.

NERVE BLOCKING.

DR. M. L. HARRIS, of Chicago, stated that while experiments showed that novocain was only about one-seventh as toxic as cocain, it should not be forgotten that serious and even fatal results might follow an overdose. The amount of novocain that could be injected without producing toxic symptoms varied considerably and depended largely upon the rapidity of absorption. If a plain watery solution was used and injected in the region where absorption was rapid 0.3 gm. to 0.4 gm. might produce symptoms, but if the solution be one which absorbed slowly 0.5 gm.-1.0 gm. might be used without danger. The more rapid the absorption, the less marked the anesthesia, for it required a certain length of time for the drug to act. The addition of adrenalin to the solution materially increased the degree and duration of the anesthesia. Hoffmann had found that the addition of 1-4 of one per cent. to 1 per cent. of potassium sulphate also materially increased the duration of the anesthesia, and that he was able to produce anesthesia with a much weaker solution.

The speaker had found in his own work that by the addition of calcium chlorid in varying strengths, the anesthesia might be prolonged for two or three hours without difficulty, and that a weaker solution might be used than without the calcium chlorid. The formula which he was using at present and which had given him the best results was novocain, one-fourth to one per cent.; calcium chlorid, one-fourth to one-half of one per cent.; chlorbutanol, eight-tenths of one per cent. in distilled water, to which were added four to five drops of the 1-1000 adrenalin solution to 30 c.c. of the mixture. It was very essential that the mixture be properly prepared, and the method he used was the following: The distilled water was sterilized by boiling. The novocain was then added and the boiling continued not to exceed two or three minutes, as prolonged boiling spoiled cocain. When this had cooled down to below 150° F., 1.0 gr. of chlorbutanol was added to every 100 c.c. of the novocain solution. Water dissolved only about eight-tenths of one per cent. of chlorbutanol, but one per cent. was added merely as an easy way of insuring a saturated solution. The undissolved part simply settled at the bottom. A two to four per cent. solution of calcium chlorid in distilled water was made and sterilized, and then the chlorbutanol added the same as to the novocain solution. The solutions were kept separately and mixed just before using. In this way the percentage of the ingredients might be quickly varied to suit the particular case. The adrenalin should never be added until just before using, as it was very unstaple and soon spoiled if left standing in the solution, which was indicated by the solution gradually turning a reddish color. The adrenalin solution should be comparatively fresh, and if it had turned reddish in color it should not be used. The chlorbutanol was added because it had distinct anesthetizing properties of its own, and being soluble in lipoids increased the anesthetizing effect of the novocain.

As to the advantages of nerve blocking, it was less dangerous. It would be admitted that practically all substances used for this purpose were more or less toxic, but the degree of toxicity was comparatively well known, and as the substances were injected locally to affect nerve trunks and not used generally to affect nerve centers, it was easier to guard against an overdose. The method was devoid of dangerous and unpleasant complications which so frequently followed the use of general anesthesia or anesthetics, particularly ether and chloroform.

In his experience the great majority of patients preferred being conscious, and looked upon the loss of consciousness as one of the greatest drawbacks to an operation. The psychic elements in these cases had been greatly overestimated. The horror of an operation was based on: first, the fear of pain; second, the loss of consciousness; and, third, apprehension as to the outcome.

He had done under nerve blocking 234 operations on 217 patients, and in his paper he presented a list of cases showing the wide applicability of the method. The number of failures was six, and the number of deaths was seven.

SPINAL ANESTHESIA IN GYNECOLOGY.

DR. GEORGE GELLHORN, of St. Louis, pointed out that the severity of an operation stood in direct proportion to the amount of ether inhaled. The popular ether drop method was not as safe a procedure as would appear from existing statistics. The latter were incomplete in regard to the number of fatalities and did not take into consideration late complications which might either lead to death or seriously interfere with convalescence. There should not be any routine method, but the needs of the individual cases must govern the choice of the mode of anesthesia. In gynecological work, spinal anesthesia offered particular advantages and showed most impressive results.

The mortality rate from spinal anesthesia could not be determined by statistics. These were unreliable. The majority of deaths occurred during the experimental stages of the method. The anesthetic itself seemed to have nothing to do with the mortality. Stovain, tropococain, and novocain were more or less equivalent. His experience was limited to the last named drug. The safety of spinal anesthesia depended upon first its accurate technic, and the strictest observance of even the minutest detail was of paramount importance. Reports of deaths, therefore, must contain all details of the technic employed before they could be admitted to serious consideration. It had been proved in thousands of cases that by painstaking technic, not only death but collapse and other alarming complications of earlier days could successfully be avoided. Contrary to popular prejudice, there was no psychic trauma connected with spinal anesthesia. Nausea and vomiting during the operation were reduced to a minimum or altogether absent. The abdominal walls were fully relaxed, and the intestines remained quietly within the peritoneal cavity. Therefore, all operative manipulations were rendered easier, and the brusque handling of the viscera was obviated. All this tended to lessen the operative shock, and as nerve impulses did not

touch the brain, spinal anesthesia was the ideal measure of anoci-association.

In a certain small percentage analgesia was incomplete, then a few whiffs of ether sufficed to render the operation painless.

In a list of 127 abdominal and 42 vaginal operations he showed that every kind of gynecological operation, not including those on the kidney, could be performed under spinal anesthesia. There had been no death from this method. In all, four patients died, two of these from sepsis after radical operations for cancer of the cervix.

The post-operative care of spinal cases was strikingly easy. The usual post-operative symptoms appeared in greatly mitigated form, or were altogether absent. Patients who had had personal experience with ether and spinal anesthesia declared themselves in favor of the latter. An annoying and comparatively frequent by-effect was headache, which, however, yielded spontaneously or to bromides, and constituted no danger to the patient. Other by-effects, such as backache, paresthesias, and temporary paralysis, seemed to have become less frequent with improvements in technic, and it was the consensus of all observers that lasting ill effects were conspicuously absent. Spinal anesthesia markedly lessened the blood pressure and should therefore be used with caution in cases of pronounced hypertension. Acetonuria occurred after spinal anesthesia, as well as after inhalation narcosis, but exerted no deleterious effect upon the patient; it disappeared spontaneously about five days after operation.

Spinal anesthesia enabled us to operate with safety on patients in whom ether would be contraindicated. It was thus chiefly applicable in cases where the seriousness of the affection, the magnitude of the operation, or coexisting complications (cardiac and pulmonary lesions, nephritis, diabetes, hyperthyroidism, advanced age, debility) constituted a particular risk. Minor operations should be reserved for ether narcosis. Spinal anesthesia was contraindicated in kyphoscoliosis and other marked anomalies of the spinal column, diseases of the central nervous system, profound shock, or marked hypotension from other causes; sepsis, and fevers of unknown origin; furthermore, in neuropathic individuals and where there was a strong prejudice against the method. Suppurations and eruptions near the desired site of injection forbade the use of spinal anesthesia until aseptic conditions could be established.

DISCUSSION.

DR. FREEMAN ALLEN, of Boston, said that while he was not an ardent advocate of spinal anesthesia in certain cases, yet as a professional anesthetist he felt called upon to defend ether. He felt that a great deal of the condemnation that ether had been receiving lately was due to the fact that surgeons and patients had been the victims of unskillful administration of ether. He thought that surgeons were much too apt to put up with administrations of ether by persons who were comparatively unskillful and then to blame ether anesthesia in general. If he were a surgeon and lived in a community where the services of a really skilled anesthetist were not obtainable, he should certainly use spinal anesthesia very largely, if not exclusively. He agreed with Dr. Gellhorn that there was no psychic shock whatever when a patient had been properly prepared for spinal anesthesia and was properly handled during the same.

DR. JOHN O. POLAK, of Brooklyn, had had two cases of very prompt and aggravated shock coming on from the immediate use of the Fowler position after abdominal operations for general peritonitis where a stab wound incision was made and drainage instituted. It had been their custom to have these patients placed in a horizontal position or moderate Trendelenburg position for the first few hours. They got those two cases up in the Fowler position and in coming out of the anesthesia both were in the most severe shock as the result of it, and only by change of posture was the shock relieved.

In regard to spinal anesthesia, during the last two years they had used it in a number of cardiac cases, cases of tuberculosis, diabetes, and in those in which they had to do obstetrical or gynecological operations. In those extremely severe cardiac cases that complicated pregnancy the use of spinal anesthesia had brought to them a new era of obstetric surgery.

DR. SETH C. GORDON, of Portland, Me., had given ether and chloroform for over 50 years, and had never seen but one death from chloroform. He had never seen but one death which in his opinion was traceable to ether. He believed that the main trouble had been in the administration of those two anesthetics, and that the more experience we had and the more we adopted modern methods, as for instance, the drop method of ether, we had something that was certain in any case where we were obliged to resort to a surgical operation.

DR. M. L. HARRIS, of Chicago, found under nerve blocking there had been no deaths, so it was perfectly safe from that standpoint. He had had occasion to operate on a number of patients who had undergone previous operations under general anesthesia, and without a single exception the patients had expressed themselves as infinitely preferring nerve blocking and would never think of taking a general anesthetic again. Until we found some way of limiting spinal anesthesia to a distinct level or to a certain part of the cord, he thought peripheral anesthesia or nerve blocking might have certain advantages over intraspinal anesthesia.

DR. GEORGE GELLHORN, of St. Louis, said he had never done anything but gynecological operations under spinal anesthesia, but was certain that in operations upon the extremities nerve blocking would be the method of anesthesia of the future.

(To be continued.)

Book Reviews.

The Question of Alcohol. By EDWARD HUNTINGTON WILLIAMS, M.D. New York: The Goodhue Company. 1914.

Three of the five papers composing this book are the result of an investigation undertaken for the *Medical Record*, and were originally published in that periodical in 1913 and 1914. One is reprinted from the *Survey* of April 18, 1914.

of the cervix, considering the direction of the cervix from the position of the external opening. It was a condition which was always congenital unless caused by pelvic inflammation.

Heretofore he had always looked upon the shortened, and not infrequently indurated condition of the sacro-uterine ligaments as being the main factor in causing this position of the cervix, and he had, on a number of occasions in the last twenty years, cut the shortened ligaments to overcome the backache of which many persons so afflicted complained, several times relieving this symptom by the surgical intervention.

That the holding forward of the fundus was due to the action of the round ligaments was, in his opinion, questionable in the greater number of such instances. These ligaments were not taut, except when the bladder and the rectum were full. The condition was usually an association of anteflexion of the body of the uterus with a retroversion of the cervix; and unless there be an atrophy of the anterior cervico-corporal junction, probably as a result of long standing of the condition, we would find the tissue at this junction unyielding; indurated, if we might call it so, since it was impossible to straighten it permanently by manual or mechanical means. Hence the mechanical dysmenorrhea of which many patients frequently complained. The usually present shortened anterior vaginal wall was part of the congenital malformation and was, of course, an additional factor in causing the retroversion of the cervix.

He had always regarded the shortened and thickened sacro-uterine ligaments to be a low-grade inflammatory process, a parametritis posterior. Furthermore, when the condition was of long standing and more or less atrophy had taken place in the interior part of the cervix at the flexion angle, due to long duration and not infrequently increased size of the body of the uterus, the organ could not straighten itself by any physiological factor brought to bear upon it. We might indeed see the uterus assume a position farther backward in the pelvis, thus constituting a retroposition; and then the intraabdominal pressure might cause a still more acute flexion angle.

DR. HENRY T. BYFORD, of Chicago, said he had usually regarded this condition of forward fixation of the cervix with retroversion of the uterus very much as the rest of the members. He had in many cases separated the bladder from the uterus quite extensively through a transverse incision and had drawn the parts together from the side to the median line, but he had not done exactly the same operation as that described by Dr. Reynolds. He had operated with the idea that when he drew the connective tissue from the sides of the cervix as far back as he could, he was drawing the tissues taut, getting support in front of the cervix which would hold it back more, making lateral support, drawing from the connective tissue around the sides of the cervix, and in that way replacing the cervix backward by the support of the connective tissue to the side of the cervix, instead of releasing the cervix merely from the traction of the anterior abdominal wall.

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The speaker had found in his own work that by the addition of calcium chlorid in varying strengths, the anesthesia might be prolonged for two or three hours without difficulty, and that a weaker solution might be used than without the calcium chlorid. The formula which he was using at present and which had given him the best results was novocain, one-fourth to one per cent.; calcium chlorid, one-fourth to one-half of one per cent.; chlorbutanol, eight-tenths of one per cent. in distilled water, to which were added four to five drops of the 1-1000 adrenalin solution to 30 c.c. of the mixture. It was very essential that the mixture be properly prepared, and the method he used was the following: The distilled water was sterilized by boiling. The novocain was then added and the boiling continued not to exceed two or three minutes, as prolonged boiling spoiled cocain. When this had cooled down to below 150° F., 1.0 gr. of chlorbutanol was added to every 100 c.c. of the novocain solution. Water dissolved only about eight-tenths of one per cent. of chlorbutanol, but one per cent. was added merely as an easy way of insuring a saturated solution. The undissolved part simply settled at the bottom. A two to four per cent. solution of calcium chlorid in distilled water was made and sterilized, and then the chlorbutanol added the same as to the novocain solution. The solutions were kept separately and mixed just before using. In this way the percentage of the ingredients might be quickly varied to suit the particular case. The adrenalin should never be added until just before using, as it was very unstaple and soon spoiled if left standing in the solution, which was indicated by the solution gradually turning a reddish color. The adrenalin solution should be comparatively fresh, and if it had turned reddish in color it should not be used. The chlorbutanol was added because it had distinct anesthetizing properties of its own, and being soluble in lipoids increased the anesthetizing effect of the novocain.

As to the advantages of nerve blocking, it was less dangerous. It would be admitted that practically all substances used for this purpose were more or less toxic, but the degree of toxicity was comparatively well known, and as the substances were injected locally to affect nerve trunks and not used generally to affect nerve centers, it was easier to guard against an overdose. The method was devoid of dangerous and unpleasant complications which so frequently followed the use of general anesthesia or anesthetics, particularly ether and chloroform.

In his experience the great majority of patients preferred being conscious, and looked upon the loss of consciousness as one of the greatest drawbacks to an operation. The psychic elements in these cases had been greatly overestimated. The horror of an operation was based on: first, the fear of pain; second, the loss of consciousness; and, third, apprehension as to the outcome.

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The mortality rate from spinal anesthesia could not be determined by statistics. These were unreliable. The majority of deaths occurred during the experimental stages of the method. The anesthetic itself seemed to have nothing to do with the mortality. Stovain, tropococain, and novocain were more or less equivalent. His experience was limited to the last named drug. The safety of spinal anesthesia depended upon first its accurate technic, and the strictest observance of even the minutest detail was of paramount importance. Reports of deaths, therefore, must contain all details of the technic employed before they could be admitted to serious consideration. It had been proved in thousands of cases that by painstaking technic, not only death but collapse and other alarming complications of earlier days could successfully be avoided. Contrary to popular prejudice, there was no psychic trauma connected with spinal anesthesia. Nausea and vomiting during the operation were reduced to a minimum or altogether absent. The abdominal walls were fully relaxed, and the intestines remained quietly within the peritoneal cavity. Therefore, all operative manipulations were rendered easier, and the brusque handling of the viscera was obviated. All this tended to lessen the operative shock, and as nerve impulses did not

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Whether one agrees in whole, in part, or not at all with the author's conclusions, his monographic collection of essays deserves serious consideration, particularly since it offers, what has long been lacking from the dispassionate opponents of prohibition, a definite substitute plan of action. The book is a thoughtful and scholarly contribution to the study of one of the great problems of the age.

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Acute Poliomyelitis. By DR. IVAN WICKMAN of Stockholm. Authorized English translation by DR. WM. J. A. M. MALONEY, F.R.S., ed. Illustrated. New York: The Journal of Nervous and Mental Disease Publishing Company. 1913.

This monograph is No. 16 of the Nervous and Mental Disease Series, and is a most worthy addition to those well known publications. Wickman's investigations of poliomyelitis make anything he may write of the utmost value, and this translation into English of his important study will extend still further the scope of his influence. The monograph gives a concise description of what we at present know regarding the disease. Whether the conclusions reached regarding methods of dissemination will be finally accepted must remain for the present undetermined. An excellent bibliography concludes this well translated pamphlet.

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THURSDAY, SEPTEMBER 24, 1914

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TUBERCULOSIS AMONG IMMIGRANTS.

THE question of disease prevention is one of constantly increasing importance, but only by public education can any kind of rapid progress be made. Personal selfishness is still a most important factor to be borne in mind, yet although this selfishness may be condemned, it may also be used to advantage in teaching certain people that the danger to themselves lessens as they are protected from infection. Self-preservation still continues to be one of the first laws of nature.

Occasionally some writer calls attention to tuberculosis cases among the aliens that have had a short residence in this country with sometimes the opinion that our immigration inspection is too lax. This may or may not be true, hence let us look at both sides. We must not forget the story of the clever insane patient who once told an interested listener that the reason and only reason for his being confined in the asylum was because the majority ruled. Personally he was normal but could not make the court and doctors believe it.

This country has been noted for its liberality, and when the law excluding tubercular immigrants was passed it was decided that this act applied to only those suffering from a tubercular process that could be demonstrated by the microscope; in other words the tubercle bacilli must be present and demonstrated. All other types have the right to appeal and may be landed. This narrows the matter down to tuberculosis of the lungs, genital tract, and intestinal forms. How many of these may not show a positive slide in the most expert hands is a problem, but it is safe to say a great many. Of course, there is still one loophole,—to be fair to the immigrant would it be right mandatorily to refuse him admission on signs alone? Theoretically it might; practically it might be abused to such an extent as to impede progress for years to come.

When one reads in the Surgeon-General's report of the public health service for the year 1913 that only 38 cases of tuberculosis were certified at Ellis Island, N. Y., and seven at Boston, one must remember that these were all that could be legally certified. At Boston, for example, in one year about 576 were certified for some disease of the chest, glands or joints that may be and most likely was associated with tuberculosis, and over 1000 were given, or as classified, held for further physical examination and later passed because no actual lesion could be found within a reasonable time.

As our population is steadily increasing, also the congested sections of town and city becoming more so, we are hearing more and more on the subject; its relation to the immigrant is going to be of more importance than ever. The reason we did not hear much about it in the past, however, was not wholly due to slums, poor hygienic surroundings, mode of living, etc., because these conditions existed long before the days of present immigration in large numbers. The immigrant came and later had his tuberculosis. The fact is that tuberculosis was not common among arriving immigrants, at least in demonstrable form. Persons suffering from the disease to any appreciable extent were not likely to undergo the hardship of the journey, and if they did they would probably be rejected by the steamship or sailing vessel surgeon. Marked tubercular cases are not popular on shipboard, for, as a rule, the sea voyage does not improve them and seamen have decided aversion to deaths on a ship. Many of our immigrants come from sections of Europe where tuberculosis in the past has been uncommon.

At present and in the future, tuberculosis is going to play a very important part in the examination of immigrants. Many aliens have contracted the disease in this country, returned home to visit or die, with the result of starting a new focus in their home district. This condition is recognized and the result is that many are held that afterward have to be passed because the evidence is not conclusive. When we consider that a large number of our immigrants come

logical procedure to prevent this was some method of administering ether vapor such as Dr. Gatch showed to be so advantageous as nitrous oxide and also some method of administering a sufficient amount of CO_2 in the air breathed after the anesthesia was ended to stimulate respiration to a more rapid elimination of the ether with which the body was saturated, and to prevent apnea or subnormal breathing, anoxemia and cyanosis.

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In this manner, the author proceeds to analyze and interpret a number of Chinese medical characters pertaining to disease. By way of appendix he adds a translation of a very ancient Chinese opinion on medicine, a table of Chinese prescriptions and diagnostic signs, a similar interpretation of a number of Chinese anatomic terms, a bibliography of European works on Chinese and Annamite medicine, and of Chinese medical works. The work is one of extreme interest and value not only to students of Chinese but to physicians and others concerned with the history of comparative medicine.

Acute Poliomyelitis. By DR. IVAN WICKMAN of Stockholm. Authorized English translation by DR. WM. J. A. M. MALONEY, F.R.S., ed. Illustrated. New York: The Journal of Nervous and Mental Disease Publishing Company. 1913.

This monograph is No. 16 of the Nervous and Mental Disease Series, and is a most worthy addition to those well known publications. Wickman's investigations of poliomyelitis make anything he may write of the utmost value, and this translation into English of his important study will extend still further the scope of his influence. The monograph gives a concise description of what we at present know regarding the disease. Whether the conclusions reached regarding methods of dissemination will be finally accepted must remain for the present undetermined. An excellent bibliography concludes this well translated pamphlet.

THE BOSTON

Medical and Surgical Journal

THURSDAY, SEPTEMBER 24, 1914

A Journal of Medicine, Surgery and Allied Sciences, published at Boston, weekly, by the undersigned.

SUBSCRIPTION TERMS: *$5.00 per year, in advance, postage paid, for the United States. $6.56 per year for all foreign countries belonging to the Postal Union.*

Papers for publication, and all other communications for the Editorial Department, should be sent to the Editor of the Boston Medical and Surgical Journal, 809 Paddock Building, 101 Tremont Street, Boston. All orders for reprints must be sent in writing to the Editor on or before the day of publication.

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TUBERCULOSIS AMONG IMMIGRANTS.

THE question of disease prevention is one of constantly increasing importance, but only by public education can any kind of rapid progress be made. Personal selfishness is still a most important factor to be borne in mind, yet although this selfishness may be condemned, it may also be used to advantage in teaching certain people that the danger to themselves lessens as they are protected from infection. Self-preservation still continues to be one of the first laws of nature.

Occasionally some writer calls attention to tuberculosis cases among the aliens that have had a short residence in this country with sometimes the opinion that our immigration inspection is too lax. This may or may not be true, hence let us look at both sides. We must not forget the story of the clever insane patient who once told an interested listener that the reason and only reason for his being confined in the asylum was because the majority ruled. Personally he was normal but could not make the court and doctors believe it.

This country has been noted for its liberality, and when the law excluding tubercular immigrants was passed it was decided that this act applied to only those suffering from a tubercular process that could be demonstrated by the microscope; in other words the tubercle bacilli must be present and demonstrated. All other types have the right to appeal and may be landed. This narrows the matter down to tuberculosis of the lungs, genital tract, and intestinal forms. How many of these may not show a positive slide in the most expert hands is a problem, but it is safe to say a great many. Of course, there is still one loophole,—to be fair to the immigrant would it be right mandatorily to refuse him admission on signs alone? Theoretically it might; practically it might be abused to such an extent as to impede progress for years to come.

When one reads in the Surgeon-General's report of the public health service for the year 1913 that only 38 cases of tuberculosis were certified at Ellis Island, N. Y., and seven at Boston, one must remember that these were all that could be legally certified. At Boston, for example, in one year about 576 were certified for some disease of the chest, glands or joints that may be and most likely was associated with tuberculosis, and over 1000 were given, or as classified, held for further physical examination and later passed because no actual lesion could be found within a reasonable time.

As our population is steadily increasing, also the congested sections of town and city becoming more so, we are hearing more and more on the subject; its relation to the immigrant is going to be of more importance than ever. The reason we did not hear much about it in the past, however, was not wholly due to slums, poor hygienic surroundings, mode of living, etc., because these conditions existed long before the days of present immigration in large numbers. The immigrant came and later had his tuberculosis. The fact is that tuberculosis was not common among arriving immigrants, at least in demonstrable form. Persons suffering from the disease to any appreciable extent were not likely to undergo the hardship of the journey, and if they did they would probably be rejected by the steamship or sailing vessel surgeon. Marked tubercular cases are not popular on shipboard, for, as a rule, the sea voyage does not improve them and seamen have decided aversion to deaths on a ship. Many of our immigrants come from sections of Europe where tuberculosis in the past has been uncommon.

At present and in the future, tuberculosis is going to play a very important part in the examination of immigrants. Many aliens have contracted the disease in this country, returned home to visit or die, with the result of starting a new focus in their home district. This condition is recognized and the result is that many are held that afterward have to be passed because the evidence is not conclusive. When we consider that a large number of our immigrants come

from the farm or the village, a goodly portion, let us say, of poor or frail physique, settle in our slums or markedly congested sections, live and work in decidedly unsanitary surroundings, is it any wonder that they soon show tubercular symptoms? Another point of interest is: what is the average duration of time from the entrance of infection until the patient seeks relief or the physician can find demonstrable lesions? How can we say in a given case how many months the patient has been infected? The history in many cases is so worthless that it cannot be considered.

It is the opinion of experienced medical inspectors that we have in the past exported more tuberculosis than we have imported, but at present and in the future the applicant at the gates will have to be watched with utmost care. There are medical men in the immigration service who have given considerable time and study to this matter for some years. Among other things, they have learned that from certain sections of the world the newcomer is not so likely to be infected as the alien who has had a previous residence in this country. Today, however, the disease is common pretty much the world over, city and country; the general type of immigrant is not as a whole of the highest physical type; the present war in Europe will also help swell the tide of poor physiques, and we can expect to see a gradual rise in the number of certificates for demonstrable tuberculosis. The war may lessen the number of immigrants but it will not lessen the work of our medical examiners, but will give them more chance to pick out the defectives; for, as a rule, when the tide of immigration falls off, the percentage of certificates increases.

PROGRESS OF WAR RELIEF WORK. AT HOME AND ABROAD.

SINCE the sailing of the *Red Cross* on Sept. 13, active work in the raising of funds and the organization of a second relief expedition has been continued in this country. Another general appeal has been issued by the American Red Cross Association for money and materials. The following supplies are particularly needed:

"Red Cross convalescent robes, night robes and pajamas, all neck sizes, 16, 17 and 18; sheets, 50 x 86 inches; pillow cases, 17¾ x 29; rubber sheets, size 54 inches wide; hand towels, bath towels, handkerchiefs, sponges for bath, socks, ward slippers, hair brushes and combs, bed sacks of heavy ticking and pillow sacks."

The American Red Cross has already purchased about $153,000 worth of surgical and hospital supplies.

"The supplies already bought, a large quantity of which went on the *Red Cross,* include the following: 3500 bales of absorbent and bleached cotton, 389,000 yards of gauze, 15,000 pounds of bandages, a large quantity of tincture of iodine, about 2000 gallons of morphine and ether; large quantities of adhesive plaster, surgical rubber gloves, hyperdermic syringes, rubber ice caps, ligatures for sewing wounds, and surgical instruments, and 10,000 stretchers."

As a result of the cutting off of German sources of supply, the cost of many drugs has been greatly increased. Citric acid, the citrates, castor oil, homatropine, potassium salts, and all coal-tar products have already risen in price, and will go still higher as the supply on hand becomes exhausted. Report from Washington, D. C., on Sept. 9 states that the Department of Justice is to investigate the cost of drugs and prevent unscrupulous chemists from taking advantage of the public by raising prices unnecessarily.

The shortage of many drugs is even more keenly felt in England than in the United States. A recent issue of the *Medical Press and Circular* makes interesting editorial comment on the probable effect of cutting off the world's supply of "606," which is exclusively made in Germany.

"It will be interesting to note what effect the sudden shortage in the supply of salvarsan and neo-salvarsan have upon the health statistics of the army. Both forms of "606" are made exclusively in Germany by German firms by processes the secret of which is carefully guarded. In the course of time it will be no doubt possible for the English chemists to produce salvarsan synthetically, but at the best they could hardly hope to achieve so difficult a task without many months of arduous investigation and experiment. Meanwhile war with Germany means a famine of salvarsan and neo-salvarsan, that is to say, after the available stock on hand in the United Kingdom is exhausted. It would be difficult to furnish a more striking illustration of the far-reaching effects of war than that afforded by the spectacle of syphilis wreaking its dread ravages upon a populace depleted of the marvellous specific remedy evolved by the genius of the great German scientist, Professor Ehrlich."

Meantime, activities in Red Cross relief work are rapidly progressing in the several Euro-

pean countries. In London, over $30,000 have already been raised by resident Americans to equip a surgical hospital and ambulance ship. The hospital, of 200 beds, has been established at Paignton, Devonshire. In France, the American hospital at Neuilly is in active operation.

"When the war broke out the American colony in Paris took over the unfinished building of the Lycée Pasteur and transformed it into this hospital, which well deserves the name of model hospital. The wards are clean and airy, and the operating room is fitted with the most modern appliances. There are x-ray rooms, bandaging rooms and model kitchens. There are 200 beds and a devoted staff of nurses and orderlies.

"The corps sends its own ambulances, mounted on automobiles, to search for the wounded, night and day. The authorities are refraining from sending the slightly wounded to this corps, as the hospital is equipped for the handling of severe cases to the best advantage.

"Fifteen surgeons are on duty and twenty more are ready when their services are required. They are mostly Americans, resident in Paris. There are forty trained nurses, supplemented by an earnest band of American men and women. The American ambulance corps in Paris established a high record in the last war, and that of the present time promises to be equal to it."

"The medical staff of the hospital has been recruited in Paris except that one surgeon is from Vienna. It is composed of Drs. Du Bouchet and Blake, general superintendents, assisted by Drs. Magnin, Bromer, Conkling, Cros, Davenport, Hayes, Jaugeas, Koenig, Lyon, Turner and Braithwaite.

Among the women staff are: Chief nurse, Miss Devereaux; chief operating nurse, Miss Doane; Mrs. Vanderbilt, Mrs. Monroe and Mrs. Morris, daughters of a former American consul general at Paris."

On Sept. 14 the hospital was visited by General Gallieni, the military governor of Paris, and Mr. Herrick, the United States ambassador to France. In New York, over $40,000 have already been raised for the maintenance of this hospital, and it is hoped to construct an annex with a capacity of 1,000 beds.

On Sept. 15, the American Red Cross received a letter from Mrs. Franz Jung at Munich, Germany, describing the relief work being done there by herself and Dr. Jung, a Washington physician, to whom on Aug. 20 the Red Cross cabled $500 to assist in starting their enterprise. The letter, dated Aug. 23, is in part as follows:

"Ever since the outbreak of this frightful war Dr. Jung and I have organized a class of relief workers under the American Red Cross. Our object is to turn one of the hotels or large pensions into a lazaret for the wounded soldiers. The class consisting of American men and women will have to pass an examination before the German Red Cross authorities, and then they receive a diploma entitling them to assist in the nursing of the wounded. We hope to have a lazaret of at least sixty beds and have the American Red Cross help us financially. . . . . Now it occurred to me that by organizing a lazaret here in or near Munich, where a very large percentage of the wounded will be brought, this American money would not quite lose its identity, as it were, if we called it "Das Amerikanische Kreuz Lazaret," and if we had the Stars and Stripes float over it, side by side with the Red Cross flag. Dr. Jung and I have spent several hours daily for two weeks straightening out all the details with the War Department here and the authorities of the German Red Cross. The kindness and courtesy we have met on all sides showed that the proposed lazaret meets with the approval not only of those in power but with the people."

It is more than gratifying to find the American Red Cross relief work active not only in the United States but at the hands of American citizens in England, France, and Germany as well. Nor is the field of Red Cross work limited to Europe. Report from Pekin on Sept. 14 states that the Chinese Red Cross has sent a unit of 25 men to the scene of military operations at Kiaochau. This is the first time that an Oriental Red Cross organization has served among Caucasians.

MOVING PICTURES.

To any observing person that has visited moving picture shows a marked impression is felt of their popularity and we may agree that it is no passing fad but a form of amusement that has come to stay. The legitimate moving picture show should be encouraged for it has valuable possibilities. It is a cheap form of entertainment, can take us on a journey through the most beautiful places in the world or show in detail how we are fed and clothed from raw material to finished product. As a teacher of preventive medicine in popular form, even by aid of the sensational melodrama, it may give a lesson that would be remembered in no other way.

From the early days of the biograph and dissolving views a steady improvement has been noticed, but there is a danger still existing that at least to a certain extent can be diminished. The great physicial danger today is the effect on

the eyes of the patron. At best the rapidly-changing views cause one's eyes to tire quickly and when for any reason the film is out of focus or speeded up to make time that the next performance may not be delayed, the strain thrown on the eyes becomes serious. Experience has taught the regular attendant not to sit too close to the stage if he wishes to enjoy comfort, and to turn his eyes from a series of blurred images Some regulation should be made and enforced to prevent the speeding of films, films should be focused before the play begins, and reasonable distance should be established between the screen and the seats.

MEDICAL NOTES.

AWARD TO DR. VINCENT.—It is announced that the Paris Academy of Sciences has awarded to Dr. H. Vincent a prize of 3000 francs for his work on typhoid fever.

TRANSMISSION OF POLIOMYELITIS. — In the monthly bulletin of the Massachusetts State Board of Health for July, 1914, is published the report of a series of experiments by Dr. Carl Ten Broeck "to determine whether paralyzed domestic animals, and those associated with cases of infantile paralysis, may transmit this disease." An introductory note by Dr. Theobald Smith sketches the history of spontaneous paralytic diseases of animals having strong resemblances to infantile poliomyelitis. Inoculation experiments upon monkeys were performed with material from paralyzed dogs, cattle, swine, fowls, horses, cats, and from rats and flies associated with human poliomyelitis cases. "In no case did the monkeys inoculated from any of these animals show any signs of a paralysis or symptoms which would indicate that they were infected with poliomyelitis. In the spinal cords of those that died, no perivascular infiltration with lymphocytes was found, nor was there a degeneration of the cells of the anterior horns."

BOSTON AND NEW ENGLAND.

FLOATING HOSPITAL GRADUATION.—The graduating exercises of the Boston Floating Hospital were held at the Stuart Club on Tuesday evening, Sept. 15. The principal address was made by Dr. Henry I. Bowditch, and diplomas were awarded to 51 nurses and 8 house-officers.

NEEDS OF MILK AND BABY HYGIENE ASSOCIATION.—The Boston Milk and Baby Hygiene Association has recently issued an appeal to the public for $8000 to enable the continuance of its work this fall.

"The association is just entering its fall season with 1611 babies under its care, an increase of over 200 over the number under supervision at this time a year ago. There is every indication that the milk stations conducted as baby health centres will be nearly as crowded during the fall and winter as they were during the summer, when four additional nurses were added to the regular staff.

"The progress made since the forming of this association five years ago is remarkable. In 1909 the infant mortality rate of Boston was 133 infant deaths per 1000 births, for 1913 it had been reduced to 111 deaths per 1000. As one point less means twenty fewer deaths, the 1913 rate shows a saving of 440 babies' lives annually over the 1909 rate. This shows of what value this work has been. In 1909 the association had six stations for the distribution of pure milk and a staff of six graduate nurses: now it conducts twelve stations and employs from thirteen to seventeen graduate nurses. Throughout 1909 it cared for 738 babies, in 1913 for 3421 and this year the total will be about 4000.

"This work for public health has no income from invested funds nor any municipal or state grant. Having no endowment, all its funds must be raised by public subscription. Receipts for the last three months have fallen off. If this continues the trustees will be compelled to consider the closing of some of its milk stations, with the consequent withdrawal of medical and nursing help from hundreds of babies and mothers. Just when the professional efficiency of the work is at its highest point, and so many women are learning the value of preventive medicine and hygiene, it would be particularly unfortunate to take a backward step."

HEALTH DAY IN THE BOSTON PUBLIC SCHOOLS. —The following letter has been sent by the School Committee to the physicians and dentists of Boston:

"Health Day is observed annually in the Boston public schools on the first Friday in October. This day offers a special opportunity to impress upon a large proportion of our community the importance and the value of good health.

"In each school the teachers and pupils are to be assembled on Friday, October 2, 1914, for special exercises in the observance of Health Day. In many school districts, meetings of parents and teachers can be arranged for an evening program on the same topic. The lessons in hygiene and in preventive medicine presented to pupils and parents at meetings of this kind reach far beyond the limits of the class-room and of the home; they become the working rule of a large section of the city's population and find ready application often in the workshop, in industrial life, and in recreation. It is most important that the lessons taught should be in accordance with the best teachings in modern medicine. This calls for the active co-operation of physicians and dentists whose daily life is in

close touch with the consequences of the failure of individuals to observe the simple truths of preventive medicine.

"The superintendent of schools, Dr. Franklin B. Dyer, has authorized the director of school hygiene to invite the physicians and dentists of Boston to coöperate in making Health Day this year an occasion for special emphasis on the unnecessary waste of health, efficiency, and often of life itself by causes preventable and avoidable. The plan is to have a physician or a dentist, or both, give a short talk on some simple health topic, *e.g.* sunshine, good ventilation, adequate sleep, proper food, care of the teeth, and personal hygiene, and to point out how these agencies may be used effectively for bettering the health and living of the people. Physicians and dentists who desire to assist in this undertaking are requested to notify Dr. Thomas F. Harrington, director of school hygiene, Boston, stating the time of day most convenient for each to address teachers and pupils or parents of a specified school, so that definite arrangements may be made with each physician or dentist volunteering."

NEW YORK.

August Mortality Statistics.—The weekly reports of the City Health Department show that the mortality in the city during the month of August represented an annual death-rate of 12.12, as against 11.88 in July and 12.72 in August, 1913. Among the diseases in which there was an augmented fatality were the following: The weekly average of deaths from whooping-cough increased from 6.5 in July to 8 in August; the weekly average from acute bronchitis, from 6.25 to 8.25; from cancer, from 82.25 to 87; from diarrheal diseases under 5 years, from 163.5 to 213.5; and from Bright's disease and acute nephritis, from 87.25 to 94.5. Among the diseases in which there was a diminished mortality were the following: The weekly average of deaths from typhoid fever declined from 7.5 to 6.5; from measles, from 7 to 5.75; from diphtheria and croup, from 26.25 to 13.5; from broncho-pneumonia, from 59.5 to 33.5; from tuberculous meningitis, from 15.75 to 14.5; from apoplexy and softening of the brain, from 22.5 to 20.5; from organic heart diseases, from 163.5 to 159.75; and from cirrhosis of the liver, from 11.75 to 10.75. This year the height of the infant mortality came later than usual, the weekly average of deaths from diarrheals under 5 years being 213.5, as against 194.5 in August, 1913. A gratifying decrease is to be noted in the mortality from diphtheria and croup, the death-rate from which, as compared with the July rate, was reduced practically one-half.

Tuberculosis Statistics.—The tuberculosis figures just given out by the health department for the second quarter of 1914 are not particularly encouraging. While they show little variation from those of the corresponding quarter of 1913, there is a slight increase in the number of new cases reported and in the total number of cases registered; the latter class showing an increase of about 3500. As was to be expected, by reason of the increased hospital facilities, a larger number of admissions to hospitals are shown.

Deaths from Mercurial Poisoning.— Coroner's physician Charles F. Pabst of Brooklyn reports that the records of the coroner's offices of the five boroughs from June 1 to September 1 show a steady and encouraging decrease in the deaths from mercuric chloride, as a result of the enactment of the ordinance prohibiting the sale of the drug without a physician's prescription. Of the nine deaths due to this cause in the period mentioned, eight were suicides and only one accidental. It is expected that the number of fatalities will be still less in the next three months, for when the regulation took effect many persons had a supply of bichloride in their homes, and when this stock is exhausted the danger will be lessened. Dr. Pabst expresses the opinion that the satisfactory result of this ordinance in New York will prompt many states to take action, and states that bills embodying similar regulations will be introduced at the next sessions of the legislatures of Massachusetts, New Jersey, and Illinois. Mercuric chloride tablets must now be made in a distinctive shape and color, and it is almost impossible for anyone to take them by mistake.

Mortality for Week Ending September 12, 1914.—There were 1266 deaths and a death-rate of 11.27 reported during the past week, as against 1134 deaths and a rate of 11.30 for the corresponding week of 1913, an increase in the absolute number of deaths of 32, but a decrease in the rate of .23 of a point per 1000 of the population, which is equivalent to a decrease of 25 deaths.

The most noteworthy decreases in the individual causes of death were scarlet fever—not a death was reported from this cause during the week, a rather unusual happening—diphtheria and croup, whooping cough, lobar- and broncho-pneumonia. Those causes showing material increases were typhoid fever, diarrheal diseases, organic heart disease, pulmonary tuberculosis, Bright's disease of the kidneys and deaths from violence.

Viewed from the point of age grouping, the mortality of infants under one year of age showed a decrease of 47 deaths, between one and four years there was an increased mortality of 41 deaths, between five and sixty-five years an increase of 19 deaths, and over sixty five years of age an increase of 3 deaths.

The death-rate for the first thirty-seven weeks of 1914 was 13.73 per 1000 of the population against a rate of 14.25 for the corresponding

period in 1913, a decrease of a little over one-half a point.

A CENTENARIAN.—Alfred King, who died on Sept. 16 at Ledyard, near Auburn, Cayuga county, is said to have been born in 1813 in England.

FOURTH OF JULY FATALITIES.—By way of preparing for Fourth of July accidents, hospitals, supply stations, and health department branch offices were, in accordance with annual custom, provided with tetanus antitoxin to be employed as a preventive measure in cases of gunshot and firework injuries, and the department reports that from June 28 to July 15 a total of 124 prophylactic injections with the antitoxin thus supplied were made in the different boroughs of the city. From the police department it is learned that the number of Fourth of July accidents reported was 200—almost exactly the same as last year, when there were 202.

Massachusetts Medical Society

FRANKLIN DISTRICT MEDICAL SOCIETY.—A joint meeting of the Franklin District Medical Society, the Windham County Medical Society of Vermont, and the Cheshire County Medical Society of New Hampshire was held at the Hotel Northfield, East Northfield, Mass., September 8, 1914. There was a morning session at 10.30 o'clock and an afternoon session at 2.00 o'clock. Dr. J. E. Urquhart, of Ashfield, Mass., president of the Franklin District Society, presided, and Dr. H. G. Stetson, secretary of the Franklin District, acted as secretary. Papers were read according to the following program, and they were much appreciated by the forty physicians present:

MORNING SESSION.

"Osteomyelitis, Cardinal Points," Dr. Charles H. Goodrich, Brooklyn, N. Y. "The Physician's Responsibility in Protecting Infants from Disease," Dr. Richard M. Smith, Boston. "Gall Stones," with specimens, Dr. Fred B. Lund, Boston.

AFTERNOON SESSION.

"Certain Aspects of Pulmonary Disease," Dr. Frederick T. Lord, Boston. "The Practical Value of Bone Grafts in Surgery," Dr. Charles F. Painter, Boston. "A Localized Subacute Form of Broncho-Pneumonia," with x-ray plates, Dr. Ralph C. Larrabee, Boston.

The discussion was participated in by Dr. P. W. Goldsbury of Warwick, Dr. C. L. Mines of Bellows Falls, Vt., Dr. J. H. Blodgett, of the same place, and Dr. N. P. Wood of Northfield.

Current Literature

MEDICAL RECORD.

AUGUST 22, 1914.

1. GIBSON, C. L. *The Low-Table Position and Other Aids to Performing Suprapubic Prostatectomy.*
2. YEOMANS, F. C. *Coccygodynia—A New Method of Treatment by Injections of Alcohol.*
3. BROWNING, C. C. *Report of Four Cases of What Appeared to be Tuberculous Meningitis with Apparent Permanent Arrestment.*
4. *BLINDER, J. *Syphilis of the Lungs Simulating Pulmonary Tuberculosis.*
5. CRAMPTON, C. W. *Prevention of School-room Disease and Dust.*
6. SEXTON, L. *Observation of Malarial Fever.*
7. MAYS, T. J. *State Prevention and Pulmonary Consumption.*
8. KRAUSE, J. T. *The Necessity for Parental Coöperation in the Examination of Mental Defectives.*

4. Blinder reports a case of pulmonary syphilis which presented all the cardinal symptoms of phthisis except hemoptysis. No tubercle bacilli could be found in the sputum and the Wassermann test was positive.

AUGUST 29, 1914.

1. EPPINGER, H., AND GUTMAN, J. *Intestinal Intoxication.*
2. PETERS, A. W. *The Sterilization of Mental Defectives, Considered from the Physiological Standpoint.*
3. BLATTERS, S. R. *A Plea for the More Rational Use of Vaccines.*
4. BRYANT, W. S. *Note on the Use of Radium in Treatment of Diseases of the Ear.*
5. LOWERY, J. R. *Pellagra.*
6. LAPAT, W. *A Plea for More Care in the Treatment of Follicular Tonsillitis.*
7. PARK, F. E. *Two Cases of Treatment by Radium Emanation.*

[L. D. C.]

SEPTEMBER 5, 1914.

1. *STILLMAN, E. G. *The Immediate Results of Salvarsan Treatment of Syphilis, as Judged by the Wassermann Reaction, Using a Cholesterin-Fortified Antigen.*
2. DUNCAN, C. H. *Autoimmunization in Respiratory Infections.*
3. NEWTON, R. C. *A Sketch of the Origin of Auscultation and Percussion, and of the State of Clinical Medicine in the Time of Auenbrugger and Laennec.*
4. GREELEY, H. *Public Health Education.*
5. WIGHTMAN, H. W. *The Useful Surgeon.*
6. DEADERICK, W. H. *Herpes Zoster and Malaria.*
7. CRAIG, C. B. *Cerebral Syphilis in the Secondary Stage.*
8. MACHT, D. I. *Detection of Gelatin in Ice Cream.*

1. Stillman finds that when a cholesterin-fortified antigen is used, the Wassermann reaction in early syphilis treated with salvarsan may be changed from a strong positive (3+) to a negative. Old cases show little or no improvement, serologically speaking.

NEW YORK MEDICAL JOURNAL.

SEPTEMBER 5, 1914.

1. KEYES, E. L., JR. *Carbolic Instillation in the Treatment of Bladder Tuberculosis.*

2. STERN, A. *Compulsion Neurosis.*
3. HORAN, M. J. *Abdominal Incisions.*
4. KELLER, H. *Diagnostic Aids in Diseases of the Bones and Joints.*
5. FRANKEL, J. *A New Instrument for Intravenous Injections.*
6. DUNCAN, C. H. *Autolactotherapy.*
7. LUBMAN, M. *The Tonsil from a Surgical Point of View.*
8. CHOWDRY, B. K. *Congenital Absence of Uterus and Annexa.*
9. CORBUS, B. C. *A Second Infection with Spirochaeta Pallida.*

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

AUGUST 8, 1914.

1. *EASTMAN, J. R. *Experimental and Clinical Studies of Colon Stasis.*
2. BONFIELD, C. L. *The Condition of a Few Patients Two Years after Ileosigmoidostomy.*
3. *MAYO, W. J. *Resection of the First Portion of the Large Intestine and the Resulting Effect on Its Function.*
4. REED, C. A. L. *The Redundant Sigmoid.*
5. *WHITE, C. H. *A Statistical Study of Syphilis. The Relation of Its Symptoms to Subsequent Tabes Dorsalis or General Paralysis.*
6. HAZEN, H. H. *Syphilis in the American Negro.*
7. *NICHOLS, H. J. *Observations of the Pathology of Syphilis.*
8. PAGE, J. R. *Hemorrhage from the Superior Petrosal Sinus as a Complication in Operations on the Lateral Sinus.*
9. HATCHER, R. A., AND EGGLESTON, C. *Studies on the Absorption of Drugs.*
10. WHITING, A. D. *The Local Preparation of Patients for Operation.*
11. *ROTH, G. B. *Pituitary Extract. An Examination of Some Commercial Preparations Made from the Posterior Lobe of the Pituitary Body.*
12. COATES, G. M. *A Case of Myiasis Aurium Accompanying the Radical Mastoid Operation.*
13. BLOSSER, R. *Harmful Effect of Certain Sugar-Cane Products. A Preliminary Report.*
14. SINGER, J. J. *A New Simple Stethoscope.*
15. HAYES, W. M. *Table Attachment for Doing Surgery on Face, Throat and Neck.*
16. RHODES, R. L. *An Operation for Shortening the Scrotum.*

1. Eastman advocates the union of the caput-coli to the upper rectum instead of ileosigmoidostomy as being a more safe and satisfactory drainage procedure when short-circuiting of the large intestine is desirable.

3. Mayo finds that resection of the first portion of the large intestine has a favorable effect on conditions of intestinal toxemia and constipation, and although he had no mortality in his series he warns against the hasty adoption of so severe an operation as this as a routine.

5. White makes the following deductions from a study of 1694 cases of syphilis:

Hereditary syphilis does not tend to show itself cutaneously at birth. Men seem more liable to develop leukoplakia, central symptoms, mucous plaques, alopecia, iritis and pain, while women are more prone to early and later skin manifestations, pharyngitis, condylomata and headache. Tabes attacks men and women in the ratio of six to one. In 45 per cent. of the cases of tabetics syphilis was acknowledged or found actively present (Wassermann test not included). Tabes developed in 11 per cent. within 5 years from the date of infection, and 61 per cent. within 15 years. Of 500 tabetics only about 3 per cent. had ever manifested any late cutaneous lesions. Pain was the most frequent early symptom of tabes and the legs were the first part of the body to evince the disease. General paresis occurred in men and women in the ratio of ten to one. The youngest paretic was 16 years old and the oldest 76. Of 178 paretics only 1 per cent. had ever suffered from late cutaneous syphilis.

7. Nicholas is led to believe that in syphilis the spirochetes localize during the early septicemia and probably not in the later stages. Certain strains probably localize in especial organs and remain as individual strains. An active lesion in one part of the body tends to inhibit the development of potential lesions in other parts of the body.

11. Roth finds a wide variation in the activity of commercial pituitary extracts.

[E. H. R.]

SURGERY, GYNECOLOGY AND OBSTETRICS.

AUGUST, 1914.

1. *SHERMAN, H. M. *Fractures Near Joints.* SHERMAN, H. M., AND TAIT, D. *Fractures Into Joints.*
2. *MCKENTY, F. E. *Tumors of the Neck.*
3. TAGE-HANSEN, C. *A Case of Common Ileocolic Mesentery with Torsion.*
4. *MACKIEM, G. E. *Tuberculosis of the Kidney; with Especial Reference to Its Diagnosis.*
5. KÜMMELL, H. *Operative Treatment of Aneurysm of the Aorta.*
6. DOEDERLEIN, T. J. *Dysmenorrhea Essentialis.*
7. TARNOWSKY, G. DE. *Calcified Fibroma Uteri Compressing the Sigmoid Colon.*
8. *FAY, O. J. *Traumatic Parosteal Bone and Callus Formation.*
9. FREIBERG, A. H. *Infraction of the Second Metatarsal Bone.*
10. NEUHOF, H., AND OPPENHEIMER, E. D. *Congenital Contractures of the Fingers; with the Report of a Case of the Familial Type.*
11. BEHAN, R. J. *Modern War Surgery.*
12. MACDONALD, L. T. *Contractured Psoas Parvus Tendons; Their Insignificance and Clinical Relationship to Lesions of the Right Iliac Region.*
13. TAUSSIG, F. J. *Sarcoma of the Round Ligament of the Uterus.*
14. HEYD, C. G. *A Procedure for the Repair of Accidental Injuries to the Rectum.*
15. CARREL, A. *On the Technic of Intrathoracic Operations.*
16. LAW, A. A. *Avulsion of the Scalp.*
17. JACKSON, R. H. *Anterior Choledojejunostomy; with Report of a Case.*
18. THORNTON, W. *A New Method of Circumcision.*
19. SATTERLEE, H. S., AND HOOKER, R. S. *The Further Development of an Apparatus for the Transfusion of Blood.*
20. MADILL, D. G., AND ALLAN, R. M. *The Use of Pituitary Extract in Labor.*
21. FOSTER, G. S. *The Axillary Sup.*

1. Sherman and Tait from an interesting series of experiments conclude that the trans-articular method is the only practical method which gives perfect access to certain joint fractures and permits accurate reposition of the fragments. They feel that they have established the safety of the procedure and the lack of interference with normal motion even when intra-articular plates and screws—properly countersunk—are used. Such foreign structures are soon covered by a thin layer of fibrous tissue and remain embedded. This work has all been done on dogs and cats and has so far not been applied to human cases, but the authors state they would not hestitate to use it in proper cases.

2. McKenty's paper is a very thorough embryological study of the bronchiogenic and thyroglossal origin of neck tumors.

4. Macklem's paper brings out the following conclusions: Ureteral catheterization is uncalled for when the tuberculous lesions about the mouth of the ureter are typically suspicious. Ureteral catheters demand more scrupulous care in cleaning than is ordinarily used. If both kidneys are involved a nephrectomy on one should not be performed unless there is present at least one-third of total normal renal tissue to remain. Vesical and urethral tuberculous infection is always secondary to the renal condition. Care should be exercised in diagnosing nephrolithiasis and movable kidney, as a colic similar to that occurring in these conditions may arise from the masses of debris which pass through an infected and narrowed ureter. Interstitial nephritis and tuberculosis resemble each other closely in the early stages and may easily be confounded. Tuberculosis occurs in the kidney as frequently as in all other genito-urinary organs put together. Tubercle bacilli are usually not found in the average urine until the appearance of pus.

8. Fay publishes an extremely interesting and suggestive paper on this subject but it is too long for adequate abstraction.

[E. H. R.]

SEPTEMBER, 1914.

1. *PHEMISTER, D. B. *The Fate of Transplanted Bone and Regenerative Power of Its Various Constituents.*
2. KÜMMELL, H. *Intravenous Ether Anesthesia.*
3. SCHMIEGELOW, E. *The Results of Operation (Laryngofissure) for Intrinsic Cancer of the Larynx.*
4. ARMSTRONG, G. *Typhoid Perforation.*
5. JELLETT, H. *The Suture of the Levator Ani Muscle in Perineorrhaphy Operations.*
6. MAYO, C. H. *Hyperthyroidism: Primary and Late Results of Operation.*
7. *GRAHAM, E. A. *The Origin and Nature of Foetal Movements.*
8. KEYES, A. B. *Mastitis Lactantis: Etiology, Behavior, Treatment and Sequelae.*
9. VERBRYCKE, J. R., JR., *Chronic Perforation of Peptic Ulcer; Report of Four Cases.*
10. *SPEED, K. *Observations of Inguinal Lipomata Based on 154 Herniotomies.*
11. SCHUBERT, G. *Concerning the Formation of a New Vagina in the Case of Congenital Vaginal Malformation.*
12. JORDAN, A. C. *Some of the Results of Neglected Chronic Intestinal Stasis.*
13. HENDERSON, Y. *Recent Experiments Defining the Dangers of Anesthesia.*
14. THOMAS, B. A., IVY, R. H., AND BIRDSALL, J. C. *Observations on the Gonococcus Complement-Fixation Test Employing Specific and Non-Specific Antigens.*
15. WATKINS, T. J. *Notes on Vesico-Uterine Transposition.*
16. GEORGE, A. W., AND GERBER, I. *The Röntgen Diagnosis of Duodenal Ulcer. A Comparison of the Direct and Indirect Methods.*
17. MACAUSLAND, W. R. *The Open Method in the Reduction of Fractures.*
18. HYMAN, A., AND JACHES, L. *The Röntgenographic Diagnosis of Prostatic Enlargement by Means of Air Inflation of the Bladder.*
19. STRAUSS, D. C. *Woven Catgut Splints for the Open Treatment of Fractures.*
20. NOVAK, E. *The Surgical Treatment of Complete Prolapse of the Uterus.*
21. DOWMAN, JR., C. E. *Hemostasis, with Special Reference to Its Employment in Surgery of the Brain.*
22. TYLER, G. T. *A Two-Eyed Aneurysm Needle.*
23. BUTT, A. P., AND ARKIN, A. *Malignant Disease of the Retained Testicle, with Report of a Case.*

1. Phemister's excellent piece of work shows that osteogenesis in bone repair occurs from the inner layer of periosteum, from the endosteum and to a much less extent from bone-cells and fibrous contents of the haversian canals. Viability of cells is in proportion to ability to get nutrition. The view of Barth and Murphy that there is no osteogenesis from any portion of a transplant, substitution occurring entirely by an ingrowth of new bone from the fragment end, he believes he has proved incorrect. The article is worth reading.

7. Graham from experimental evidence suggests that the various active movements of the foetus experienced by many pregnant women in the latter part of pregnancy are expressions of a more or less severe, but usually transient asphyxia of the foetus.

10. Speed found 73 lipomata in 154 herniotomies or 47.4 per cent. [E. H. R.]

THE LANCET.

AUGUST 22, 1914.

1. BATERSON, W. *Heredity in Man.*
2. *MCINTOSH, J., FILDES, P., AND RADCLIFFE, J. A. D. *The Diagnostic Value of the Complement Fixation Reaction in Tuberculosis. Part I. In General Hospital Practice. Part. II. In Sanatorium Practice.*
3. *CORNER, E. M. *Sepsis in the Recognition and Non-recognition of Syphilis.*
4. DAVIS, E. D. *The Importance of a Very Thorough Examination in Cases of Foreign Body Alleged to Have Been Swallowed or Inhaled.*
5. WYARD, S. A *Case of Congenital Atresia of the Bile-Ducts.*

2. McIntosh and Fildes, after discussing the general inadequacy and unreliability of the various tuberculin tests as diagnostic agents in tuberculosis, presenting statistics in this regard, describe their method of performing the complement-fixation reaction in this disease and give their results. In 85 pathologically positive cases of tuberculosis, of cases of phthisis, 76.7 per cent. gave a positive test, 80 per cent. of cases of surgical tuberculosis were positive and 37.5 per cent. of tuberculous gland cases positive. Of the "clinically certain" cases, of phthisis and pleurisy 55.5 per cent. were positive, and 71.4 per cent. of the surgical ceses; of 74 "tentative" cases, 18 per cent. were positive, while of 87 "control" cases all were negative except 2 of leprosy and 1 of Addison's disease. They believe this test to be of greater value than the skin test in that it is largely in cases of active tuberculosis only that the complement fixation test is positive but that it can never reach the value of the Wassermann test.

Radcliffe takes up this test in sanatorium practice and concludes that it is of "considerable value."

3. Corner is of the opinion that many of the features of syphilis in all its stages that are now taught in our schools as characteristic of the disease are due to the added factor of sepsis and that clean or "aseptic" cases may and often do escape notice. (This point of view is interesting but would require further confirmation.—J. B. H.)

[J. B. H.]

AUGUST 29, 1914.

THE STUDENT'S GUIDE.

(No original articles in this number.)

THE INDIAN MEDICAL GAZETTE.

AUGUST, 1914.

1. *MILNE, C. *The B. N. A.*
2. YOUNG, W. McC. *Segregation and Kala-Azar.*

3. NEWMAN, E. A. R. *The Operation of Election for the Radical Cure of Inguinal Hernia.*
4. HEHIR, P. *Prevention of Malaria in the Troops of Our Indian Empire.*
5. BRACHIO, J. J. A. *Treatment of Cholera by the Intra-peritoneal Injection of Iodine.*
6. BRODRIBB, C. *Some Cases of Intestinal Obstruction.*
7. BEDELL, P. S. *Case of Suspected Addison's Disease Aggravated by Ascarides Lumbricoides and Hysteria.*
8. FOULKES, T. H. *A New Pedicle Suture.*
9. CHOWDRY, B. K. *Case of Absence of Uterus.*

1. Milne, commenting on the fallacies of the Basler Nomenclatura Anatomica, concludes that "names should be our obedient slaves, and not our masters; certain it is they have overwhelmed the anatomists, to our confusion." [R. M. G.]

BRITISH MEDICAL JOURNAL.

AUGUST 22, 1914.

BRITISH MEDICAL ASSOCIATION.
SECTION OF SURGERY.

1. *GRAY, H. M. W., ET AL. *Discussion on the Evolution of the Shockless Operation (Anoci-Association.)*

SECTION OF NAVAL AND MILITARY MEDICINE AND SURGERY.

2. HEWETT, D. W. *The Treatment of Wounded in Naval Warfare.*

SECTION OF OPHTHALMOLOGY.

3. PARSONS, J. H., ET AL. *Discussion on the Hygiene of Reading and Near Vision.*
4. RAMSAY, A. M. *The Teaching of Ophthalmology.*
5. SAHLI, H. *Opium and Omnopon.*
6. SMITH, H. L., AND STEWART, T. G. *A Case of Disseminated Sclerosis Treated by Inoculation.*

1. Gray, discussing the prevention of shock, urges that the operation be performed as soon as the decision to operate is made. Useless delay in the matter is a potent cause of shock. Instruments must be sharp, and as little handling of tissues as possible should be done. As to the choice of an anesthetic, he favors ether by the open method. Chloroform he says is fast becoming obsolete. He urges a local anesthetic in every case where it is feasible and describes his technic and shows results in a large series of cases in which by blocking the abdominal parietal nerves by local anesthetics the pulse-rate went down instead of up after operation. [J. B. H.]

AUGUST 29, 1914.

BRITISH MEDICAL ASSOCIATION.
SECTION OF NAVAL AND MILITARY MEDICINE AND SURGERY.

1. WEBB-JOHNSON, C. *Common Ailments in Camp: Their Significance and Prevention.*
2. PAGE, C. M. *Gangrene in War.*

SECTION OF OPHTHALMOLOGY.

3. EDRIDGE-GREEN, F. N. *An Analysis of the Results of the New Sight Tests of the Board of Trade.*
4. GRIFFITH, A. H. *A Case of Late Infection Following Elliot's Operation.*
5. *HARMON, N. B. *The Causes of Blindness in Eleven Hundred Children; with Special Reference to the Influence of Venereal Disease.*
6. WILSON, J. A. *The Factor of Heredity in Myopia.*
7. MADDOX, E. E. *The Choice of a Cataract Operation.*

5. Harmon analyzes 1100 cases of blindness and presents in tabular form the causes of this condition. Of these 1100 children, the cause of blindness in 24 per cent. was ophthalmia neonatorum, and in 31.2 per cent. congenital syphilis. The cause of the increased proportion of these cases, due to syphilis during recent years, is due to a certain extent to increased knowledge of the disease and newer methods of diagnosis. [J. B. H.]

WIENER KLINISCHE WOCHENSCHRIFT.

No. 19. MAY 7, 1914.

1. SCHMIEDL, H. *Experimental Investigation of the Question of the Mechanical Origin of Arterio-Sclerosis.*
2. HEINZ, W. *Local Difference in Temperature in Phthisis.*
3. PULANSKI, A. *Treatment of Leukemia with Röntgen-rays and Benzol.*
4. *SAPHIRA, J. *Treatment of Chronic Leg Ulcer with Radium.*
5. MOCZULSKI, J. *Clinical Experience with the Intravenous Use of Ten Per Cent. Salt Solution to Assist Lung Hemorrhage.*

4. The author reports 21 cases of chronic leg ulcer treated with radium emanations. Ten were cured; six were helped markedly, and five were not benefited. [F. S. K.]

No. 20. MAY 14, 1914.

1. KARPLUS, L. *Experiments in the Brain Action in Epileptic Attacks.*
2. ROTHBERGER, C., AND WINTERBERG, H. *Pathogenesis of "Flimmerarythmie."*
3. SACHS, O. *Qualitative Estimation of Potential Formaldehyde in Different Kinds of Hexamethylenamine.*
4. *MELIHJANZ, O. *The Clinical Significance of Quantitative Estimation of Albumen in Sputum.*
5. v. SCHRÖTTER, H. *Heliotherapy at the Sea-shore.*

4. The author summarizes ten cases of pneumonia. He draws from these the same conclusions as from his previous reported cases, namely: the later it comes and the later it goes the worse the prognosis. The amount is in proportion to the severity of the disease. Much long persistence suggests phthisis. [F. S. K.]

No. 21. MAY 21, 1914.

1. BRAUN, L. *Angina Pectoris.*
2. SCHULTZ, E., AND KREUZFUCHS, H. *Case of Rumination with X-ray Findings of Intermittent Hour-Glass Stomach.*
3. RUPPERT, L. *A Fracture by Tearing Off of the Anterior Superior Iliac Spine.*
4. SCHULHOF, F. *The Treatment of Epilepsy with "Sedobrols."*
5. CEIPEH, L. *The Diet in the Alpine District of "Bezirk Innsbruck-Umgebung."*
6. JERUSALEM, M. *Heliotherapy in Austria.*
7. FRIEDLANDER, F. *Discussion of the Friedman Treatment of Tuberculosis.*

No. 22. MAY 28, 1914.

1. SCHIFF, A. *Experiments with Transient Albuminuria in the Human.*
2. MARCH, R. *Experience in the Treatment of Myoma of the Uterus.*
3. LORENZ, H. *The Operative Treatment of Habitual Luxation of the Patella.*

4. MILOVANOVIÉ, M. *Leiomyomata of the Esophagus and Cardia.*
5. *GROSZ, S. *Hexamathylentetramine Reaction.*

5. The author's test: Add to the urine enough 10 per cent. acetic or hydrochloric acid to five-fourths or four-thirds the total, then add, a drop at a time, a saturated aqueous solution of mercuric chloride. A fine-grained sediment is positive.

[F. S. K.]

No. 23. JUNE 4, 1914.

1. ARZT, L., AND KERL, W. *Experimental Rabbit-Syphilis.*
2. FASCHBINGBAUER, H. *Hemorrhagic Diathesis in Tuberculosis.*
3. GOTZL, A. *"Tuberculomuzin."*
4. KUTSCHERA, A. *Skin-Tuberculin Treatment.*
5. FRANKFURTER, O. *The Question of Mixed Infection in Phthisis and Treatment.*
6. CSEPAL, K. *The Abderhalden Dialyzation Method in Diagnosis.*

Miscellany.

STATUS OF MEDICAL EDUCATION IN THE UNITED STATES.

IN the issue of the JOURNAL for Sept. 10 we published the data as to the medical schools of New England from the recent report of the council on medical education of the American Medical Association. The following summary by Benjamin Baker in the issue of the Boston *Transcript* for Aug. 26, presents further interesting data of the work of this committee and of the present status of medical schools throughout the United States.

"Since June 30 of last year six medical colleges have either suspended or disappeared by merger with other institutions. Since 1904, when there were 160 medical colleges, eighty-five have ceased to exist, forty-nine being closed by merger and thirty-five going out of existence altogether. The largest numbers closing in single years were ten in 1907, when the council published its first classification of medical colleges; thirteen in 1910, when the second classification was prepared, and fourteen in 1913, when the third classification came out. Of the schools which became extinct, all but three were in Class C, the lowest grade of the council's classification. On the other hand, 93 per cent. of the schools which disappeared by merger were in classes A and B. This represents the general fact, namely, that in the course of the campaign for better medical education, the defective schools, which nevertheless tried to do good work, improved their work by merger with other institutions; while the cheap, money-making schools mostly gave up the struggle.

"There were at the end of last June, excluding pre-medical, special and graduate students, 16,502 medical students in the country. This is a decrease of 513 from last year; a decrease of 1910 from the year 1912, and a decrease of 11,640 below 1904, when the highest number of students, 28,142, was enrolled.

"The total number of graduates last year was 3594, which was a decrease of 387 from last year, 889 below 1912 and 2153 fewer than in 1904, when the largest number, 5747, were graduated. The percentage of decrease in both students and graduates during the past decade is nearly twice as high for the homoeopathic and eclectic schools as for the so-called 'regular' schools.

"Women students of medicine decreased 9 from last year. Last June the number of women students was 631, or 498 fewer than in 1904. Somewhat over 21 per cent. of the women students were in the two women's schools (in Philadelphia and New York), while the remainder were in the 54 co-educational colleges.

"Sixty-eight colleges of the present total 101 are in classes 'A plus,' and 'A,' of the council's classification. 'Class A plus' includes 'acceptable medical colleges,' and class A includes 'colleges also acceptable which could make certain improvements.' These two classes, constituting 63 per cent. of the whole number, enrolled 74.7 per cent. of the students, and turned out 73 per cent. of the graduates. Class B, 'colleges needing general improvements to be made acceptable,' of which there are twenty giving a complete four years' course (18.5 per cent.), have 17.2 per cent. of the students and turn out 20 per cent. of the graduates. The twenty schools in class C—'colleges needing general improvements to be made acceptable,'—have only 8.1 per cent. of the students and 7 per cent. of the graduates. These figures show that the better schools are doing a proportion of the work that is greater than their number indicates.

Of the class C schools, the prospects are decidedly unpromising. The state licensing boards of thirty-two states practically refuse to recognize any of them as giving a reasonable medical education. Of the twenty in this lowest class, Massachusetts has one, California three and Missouri five.

"Interesting and significant is the showing made by the medical schools which are integral parts of the state universities of twenty-eight states. Twenty of these state medical schools give the full four years' course and the degree of M.D., while eight schools give only the first two years of the medical course. In fifteen states no other medical school exists, the state having entire responsibility for medical education. This will be the case in Alabama in 1915, when an independent school now existing will confine itself to graduate instruction.

"Only four of these state schools get as low as class B, and this rating is not surprising when it is seen that these four are in Arkansas, Oklahoma, South Carolina and West Virginia. It is significant that in these states the state medical school is the only one. Nine other lone state

schools, however, are rated class A, and two are class A plus. Of the whole number, thirteen are class A, and eleven are class a plus.

"Thirty-four medical schools now require as a minimum for entrance two or more years to work in a college of liberal arts, in addition to a four-year high school course. Fifty others require, in addition to a four-year high school course, one year of college work in physics, chemistry, biology, and one modern foreign language. Five of these fifty colleges will require two years of such collegiate work of all students admitted for the sessions of 1915-16. This recent movement toward increased entrance requirements has been powerfully accelerated by the licensing boards of twenty states, which now require a minimum of one year, and in seven of these twenty states two years of college work in preparation.

"Service for one year as an interne or hospital officer, following the four years spent in the medical school, is now a requirement for the doctor's degree in three medical schools—those of the State University of Minnesota, Leland Stanford, Jr., California, and Rush Medical College, Chicago. In addition, along the same line, the Pennsylvania State Licensing Board requires that candidates to be eligible to practise in that state must have served at least one year as an interne in an approved hospital. Requirements for entrance, for graduation, and for license to practise are tightening up all over the country; and it is evident that in another decade the adequately educated physician will be the accepted standard, and probably pretty near the numerical majority.

"Seventy medical colleges have now established graduate courses in public health. The course is for one year, except at the universities of Michigan, Minnesota and Wisconsin, where it is two years; Wisconsin, however, gives a diploma in public health for one year's work. The seven colleges, in the order of establishment of the courses are: University of Pennsylvania, Harvard Medical, University of Michigan, University of Wisconsin, Detroit College of Medicine and Surgery, Bellevue Hospital Medical School. Tulane University, and University of Minnesota.

"Further mergers of existing medical schools are urged both on grounds of efficiency and economy. Figures are given which show that many of the best schools show a deficiency of cost per pupil from two to three times the amount of the annual tuition fee at the highest figure, or from $500 to $2744. It is pointed out that Chicago has 8 medical schools, New York 7, Philadelphia 6, Boston 4, San Francisco 4, St. Louis 4, Baltimore 3, Los Angeles 3, Washington 3, Dallas 2, Omaha 2. From a study of the situation in these cities it is held to be plain that mergers in each of them should be resorted to to gain funds and especially students for adequately using the best plants, and the most valuable instructors."

MEDICAL BOOKS OF THE FIFTEENTH CENTURY.

In his presidential address before the London Bibliographical Society last January, reported in the *British Medical Journal* of Jan. 24, Sir William Osler, taking as a subject "The Earliest Printed Medical Books," spoke particularly of the physicians, schools, and works of the fifteenth century.

"The fifteenth century possessed in medicine and science no outstanding name, and was marked by no observation or discovery of the first rank. There were then three great centres of medical study—Montpellier, Paris, and the northern Italian universities. Montpellier had reached its zenith, Paris was rapidly rising, and the schools of North Italy were well organized. Medicine was taught at Oxford and Cambridge, but they had not medical faculties as had the old Continental universities. Arabic medicine was supreme. In a work of the period written by Ferrari the name of Avicenna appeared 3,100 times, that of Rhazes 1,280 times, that of Galen 1,160 times, and that of Hippocrates 140 times. The printed medical works before 1480 to which he referred numbered 182, and represented 67 authors. Of these, 6 were classical, 8 Arabic, 23 mediaeval, and 30 belonged to the fifteenth century. The first piece of medical printing was a short Maintz calendar published in 1457; it was based on the belief that certain phases of the moon and conjunctions of the planets were favorable to bleeding. It was very dangerous to bleed a young man during a young moon, or an old man during an old moon. The monks were bled five times a year for three days running. Astrology died hard, and as late as 1707 a treatise on astrology was submitted to the Paris University, but after consideration refused. Among the early classical books was the *Historia* of Pliny, who was far more outspoken than Molière or Mr. Bernard Shaw in his criticism of the medical profession. Seven editions of it in all were printed up to 1780. There were no editions of Galen or Hippocrates, but two commentaries on their works. Aristotle was more fortunate, and the *De animalibus* of 1476 was a superbly produced book. In 1478 an edition of the works of the botanist Dioscorides was printed. A famous sixth-century codex of this was in existence, and his book was still read and used by collectors in Asia Minor. There was Celsus, too, the only classical medical writer to survive in the modern examination room. He deserved to survive for his shrewd observation and common sense.

"The domination of Arabic thought was seen in the fact that there were seven Arabic authors with twenty-one editions on the list. Among them were Avicenna, more venerated probably on account of his composition, his lucid diction, and his logical sequence than for the value of his

material; Rhazes, still quoted for his description of small-pox, whose great work, printed in 1486, was the most ponderous of the incunabula, and perhaps the weightiest book known; and Averroes, represented only by a commentator. Despite the Arabic-Greek controversy that raged between Paris and Montpellier, the canon of Avicenna held its own until the seventeenth century. The Arabs contributed nothing to medicine or anatomy, but their heavy hand is still seen in the *British Pharmacopoeia*.

"The first printed book on surgery belonged to the period of the Salernitian School, and it and one other were the only surgical books in the collection. There were the works, too, of the commentators, conciliators, and aggregators. One of the aggregators' compilations was the original and the best of all those dictionaries of treatment called for by dictors who liked to work on penny-in-the-slot lines. There was a larger number of remedies for every symptom in it than in any other book of the sort, and its author was one of the best clock-makers of the day. For some diseases there were five printed columns of the names of medicines. There was the book of Albertus Magnus, whose long life was a triumph of accomplishment. Except for Dioscorides, he was the one great botanist after Theophrastus down to modern times. Michale Scot was another of the mediæval authors represented, and in the section of his book referring to generation he had many outspoken words as to the choice of a wife. With his views on dreams and their interpretations based on a consideration of the dreamers' complexions, the school of Freud would probably be in sympathy. It was the practice of the time for patients to write out their symptoms and for the professors to write consultations on them which were really essays, and this custom was long kept up by the Italian professors. In the great Lancisi library in Rome there was a long shelf entirely filled with a collection of the 'consul tations' of the famous anatomist Malpighi, and the library possessed almost as many examples of Lancisi.

"Anatomy was not taught and, indeed, had not been taught by the Greeks other than those of the Alexandrian school, and Aristotle and Hippocrates had never seen the human heart, though the former was a good comparative anatomist. The first anatomical treatise was printed in 1478; it had been written in 1326. It was dominated by Arabic influence and inexact, differing strikingly from the descriptions of Galen, which could be used today, with few alterations, in a high school.

"The first monograph on diseases of children appeared in 1472; a monograph on the diseases of the eye was published in 1474, a book on diseases in 1477, and in 1472 a volume with a eugenic title and full of excellent common sense. It was reprinted five times before 1480."

CHANGES IN THE MEDICAL CORPS, U. S. NAVY, FOR THE WEEK ENDING SEPT. 12, 1914.

September 4, Asst. Surgeon J. H. Harris, commissioned from July 10, 1914.

Asst. Surgeon J. H. Michael, commissioned from August 8, 1914.

September 10, Surgeon Jacob Stepp, ordered to the Naval Dispensary, Washington, D. C.

Surgeon Karl Ohnesorg, detached from *Tennessee* and ordered to duty as assistant to the Naval At tache, Berlin, Germany.

NOTICES.

Home Missionary Needed.

A small hill town in New Hampshire needs a doctor. A considerable surrounding country district is also in need of good medical service. There is a hospital in a larger town a few miles away. A considerable summer colony would welcome him. If he collected $2500 he would do well and might run the danger of being considered a "rich man." Living should be inexpensive.

College Physician Wanted.

Small men's college in New Hampshire wants a physician, some teaching, and regular physical examinations. Salary $1000.

For details apply to

Dr. A. B. Emmons, 2d,
Director for Appointments for Medical Alumni,
Harvard Medical School, Boston.

RECENT DEATHS.

Dr. William L. Dudley, of Nashville, Tenn., who died recently in Illinois, was born in 1859. He graduated in 1880 from the University of Cincinnati, and in 1866 became professor of chemistry at Vanderbilt University, where he was subsequently dean of the medical department.

Dr. H. Seymour Houghton, of New York, died at his country home at Monmouth Beach, N. J., on September 11, aged 52 years. He was graduated from Bellevue Hospital Medical College in 1886, and afterwards served as interne at Bellevue Hospital. In 1909 he was president of the Medical Society of the County of New York and at the time of his death was physician to the Home for Old Men and Aged Couples.

Dr. Matthew S. Borden, of New York, and three other persons were killed near Ocean City, N. J., on September 9, when the automobile the doctor was driving was struck by a railway train. Dr. Borden was a son of the late M. C. D. Borden, the wealthy manufactuarer of Fall River, Mass., and was graduated from Bellevue Hospital Medical College, New York, in 1898.

Dr. Cornelius Van Etten, who had practised for forty years at Rhinebeck, Dutchess County, N. Y., died on September 10. He was graduated from the medical department of the University of Pennsylvania in 1873.

BOOKS AND PAMPHLETS RECEIVED.

Asphyxia Neonatorum and Its Sequelae, by W. P. Manton, M.D. Reprint.

Report of Experiments to Test the Toxicity of Mother's Milk after Administration of Acetanilide, by Beatrice A. Stevenson, M.D. Reprint.

Drinking Fountains on Fire Hydrants, by Donald B. Armstrong, M.D. Reprint.

Public Health Values, a New Modern Sanitary Fallacies, by Donald B. Armstrong, M.D. Reprint.

Public Comfort Stations: Their Economy and Sanitation, by Donald B. Armstrong, M.D. Reprint.

Focal Symptoms in General Paralysis, by C. Macfie Campbell, M.D. G. E. Eskert & Co.